
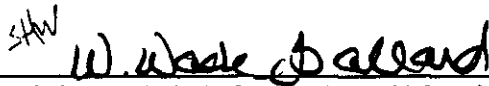


**Meeting Minutes**  
**June 27, 2000**  
**Tri-Party Agreement Milestone Review**

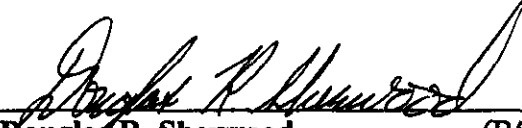
0053921

Approval:   
**Michael A. Wilson** (B5-18)  
*Ecology IAMIT Representative*

Date: 11/14/00

Approval:   
**William W. (Wade) Ballard** (A5-12)  
 Chairperson  
*RL IAMIT Representative*

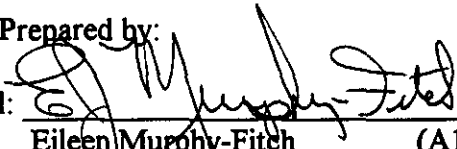
Date: 11/15/00

Approval:   
**Douglas R. Sherwood** (B5-01)  
*EPA IAMIT Representative*

Date: 11/14/00

**RECEIVED**  
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Minutes Prepared by:

Approval:   
**Eileen Murphy-Fitch** (A1-14)  
*Fluor Hanford, Inc.*

Date: 11/14/00

**EDMC**

Arnold, J. S.	BHI	H0-11	Murphy-Fitch, E. J.	FH	A1-14*
Ballard, W. W.	RL	A5-12	Piippo, R. E.	FH	A1-14
Bilson, H. E.	RL	H0-12	Rainey, M. G	OOE	
Crane, P. J.	FH	T4-04	Rodriguez, H. M.	RL/ORP	A5-15
Boston, H. L.	ORP	H6-60	Sanders, G. H.	RL	H0-12
Cusack, L.	Ecology	B5-18*	Sherwood, D. R.	EPA	B5-01*
Dagan, E. B.	RL	A5-15	Skinnarland, E. R.	Ecology	B5-18
Gerton, R.E.	RL	H0-12	Soper, W. W.	Ecology	B5-18
Goswami, D.	Ecology	B5-18	Stanley, R.	Ecology	Lacey*
Hajner, R. S.	BHI	H0-11	Stone, A. B.	Ecology	B5-18
Hales, J. E.	FH	A1-14	Walsh, J. L.	BHI	H0-11
Hertzel, J. S.	FH	A1-14	Watson, M.R.	BHI	H0-11
Iwatate, D. F.	FH	A1-14	Wilson, M. A.	Ecology	B5-18
Jarvis, M. F.	RL	A5-15	Warren, R. N.	RL	H0-12
LaRue, D. N.	BHI	H0-11	Wisness, S. H.	RL	A2-15
Logan, T. E.	BHI	H0-09	Wooley, T. M.	Ecology	B5-18
McDonald, K. M.	FH	H8-44	Yerxa, J. K. .	RL	A5-15
McKenney, D. E.	FH	G1-32	Administrative Record	EDMC	H6-08*
Moy, S. K.	RL	H0-12	*w/Attachments	File: TPAM_JUNE_27_00.doc	
Morrison, R. D.	FH	A1-14*			

## **Tri-Party Agreement Milestone Review**

### **June 27, 2000**

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#### **Environmental Restoration Project**

The Environmental Restoration (ER) Project has completed 236 Tri-Party Agreement Milestones; 42 milestones remain to be completed.

#### **M-13-00      Complete RI/FS Submittals**

The 200-CW-1 and 200-CS-1 Operable Unit RI/FS Work Plans (Rev. 0) were submitted to RL on April 24, 2000. The regulators completed the DQO reviews for 200-TW-1 and 200-TW-2 and provided comments on the 200-CW-5-U Pond/Z Ditches Cooling Water Waste Group RI/FS Work Plans.

#### **M-15-00      RI/FS Process Completion**

Approximately 800 soil contaminated sites in the 200 Area, which have been grouped into 23 process-based operable units (OU), are to be characterized by 2008 and remediated by 2018. An out-year funding allowance of \$2 - \$3 million was added to the Groundwater/Vadose Zone (GW/VZ) Project which is not sufficient to meet Tri-Party Agreement milestones/commitments. For the long-term, DOE must decide a budgetary position toward assessment and cleanup of the 200 Area liquid waste sites. The regulatory position is to submit a Tri-Party Change Request package for each OU work plan for enforceability in completing the RI through the record of decision (ROD) based on current Tri-Party Agreement milestones.

#### **M-16-00      Complete Remedial Actions**

All scheduled FY 2000 remediation work was completed in B/C Area. A request for proposal (RFP) is scheduled for August with procurement and subcontractor selection scheduled for completion in early FY 2001. D Area excavation is nearing completion; only the excavation of plumes remains. Backfilling activities are also progressing in the D Area. Mobilization activities are progressing in the F Area. All baseline excavations are complete in H Area except for the 100-H-24 Substation. Excavation of two large plumes in the H Area will extend the schedule to August. The soil remedial action goals for lead protection of groundwater and the Columbia River need to be verified and a vertical profile completed in the H Area; the arsenic issue was resolved. The subcontract was awarded on April 13, 2000, for soil remediation in the 100 N Area and work is on schedule to begin in July to meet the requirements of the RCRA Permit. Public comments were received for the 100 Area Burial Ground ROD. The remaining FY 2000 excavation activities at the 300-FF-1 OU are nearing completion. Approximately 35 tons of steel rails have been recycled. Public comment period for the 300-FF-2 OU FFS and proposed plan is scheduled for the end of June.

To prepare for receipt of waste from N Cribs and K Basins, the ERDF Safety Analysis was revised to incorporate radionuclides that are unique to these two waste streams. Approximately 5 percent more tonnage was shipped to ERDF than planned through May 2000.

## **M-24-00 RCRA Well Installation**

Routine well drilling, maintenance and groundwater monitoring continue. Well sampling is behind schedule due to labor contract issues. In-situ-redox-manipulation well drilling was completed in the 100-D Area on April 24, 2000, with a total of 16 wells drilled and installed to the planned depth. A draft response letter was prepared addressing Governor Locke's inquiry into the 618-11 Burial Ground tritium investigation. The number and locations of wells have been determined for calendar year 2000 RCRA well installation. All groundwater pump and treat systems operated at the planned 90 percent availability levels through May.

## **M-93-00 Disposition of Surplus Reactors**

All planned FY 2000 demolition scope was completed at F Reactor in February. Backfilling was initiated in the below-grade gas recirculation tunnel and plenum demolition areas in late May. Recommendations were presented to the regulators in January for accelerating removal of the F Reactor Fuel Storage Basin (FSB) clean fill material from FY 2003 into this fiscal year. Authorization for demolition of the FSB was approved in April. Engineering and planning are underway. At DR Reactor, demolition and loadout activities were completed in the north reactor area in April. Demolition was also completed for the above/below-grade exhaust plenums, south reactor sample rooms, and south gas recirculation tunnels. Demolition of the DR Reactor transfer bay and FSB began on May 31, 2000. The Engineering Evaluation/Cost Analysis documents for the D and H Reactors, along with the Auditable Safety Analysis document for D Reactor, were completed in March. Work was initiated on the H Reactor auditable safety analysis in April. The 90 percent B Reactor Museum Phase II Feasibility Study document was submitted for review on May 16, 2000. Additional engineering support was obtained to assist with the ROM estimates for hazard identification that was outside the original scope. The regulators requested the additional hazard identification.

## **Environmental Restoration Issues:**

- Lack of funding and the arsenic issue at 100 H will impact completion of Tri-Party Agreement Milestone M-16-26B, "Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines at B/C, DR and HR," by February 28, 2001. The milestone cannot be completed as scheduled. Milestone is proposed for renegotiation.
- Unanticipated elevated arsenic level will impact completion of Tri-Party Agreement Milestone M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit, due May 31, 2001. Ecology has agreed to use the Washington State background value of 20 mg/kg of arsenic. Milestone is proposed for renegotiation.
- Tritium investigation is being conducted near the 618-11 Burial Ground. Draft A of the DQO Report was finalized and will provide the basis for the Phase II tritium investigation scope.
- EPA would like to have continued operation of the 200-ZP-2 Vapor Extraction Unit but it is not included in the DWP. A decision was made to proceed with the Partitioning Interwell Tracer Test (PITT) in lieu of restarting the ZP-2 this fiscal year. The PITT test estimate will be completed by the end of July with management review scheduled for completion by mid-August.
- Partial funding is identified in FY 2001 for Interim Safe Storage (ISS) and no funding in FY 2002. This will result in program suspension and loss of potential cost savings. A strategy needs to be

developed to maintain critical resources and visible progress. In the past two years, accelerated progress was achieved through supplemental congressional funding.

- Outyear funding is not sufficient to meet M-15-00 Tri-Party Agreement commitments. A budgetary position toward assessment and cleanup of the 200 Area liquid waste sites and groundwater vadose zone is needed.
- FY 2001 and FY 2002 ER funding (target) levels are below minimum compliance requirements. Impacts will be developed associated with directed funding targets for FY 2001 – 2002 and will support DOE budget submittals and presentations, including discussions with regulators on projected future shortfalls and prioritization of allocated funding.

## **Waste Management**

### **M-19-00      Mixed Waste Treatment**

Mixed low-level waste (MLLW) continued to be treated at Allied Technology Group (ATG). As of mid-June, 1000 m<sup>3</sup> of MLLW was shipped to ATG, 570 m<sup>3</sup> treated and disposed of, achieved a stored CWC inventory reduction of 1,670 m<sup>3</sup>, and relocation of long-length equipment and macro-encapsulation tubes in Trench 34 to facilitate disposal of ATG macroencapsulated waste. The M-19 scorecard was also reviewed with a total of 942 m<sup>3</sup> of waste treated and/or directly disposed of. Planning activities include macroencapsulation of debris from T-Plant canyon deck to support sludge storage. A lack of progress on the review and approval of the delisting petition to allow disposal of U and P waste is unfavorably impacting this activity. There is no path forward for disposal of the 3800 m<sup>3</sup> of waste at CWC due to U and P code. An agreed to path forward reduces long-range impacts on storage space, reduces maintenance and operational costs at CWC, and no longer requires us to exceed the one-year storage prohibition.

### **M-91-00      Acquisition of Facilities to TSD TRU/TRUM, LLMW and GTC3**

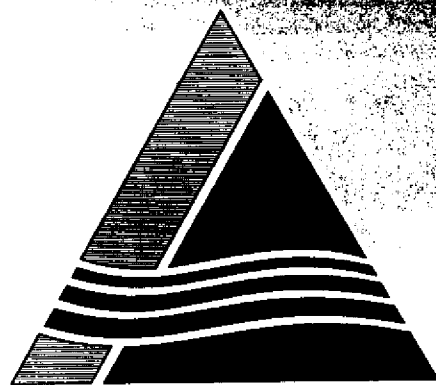
Five new Tri-Party Agreement commitments (three interim milestones and two target dates) were established to address storage of K Basin sludge at T-Plant. The internal (DOE) review of the TRU/TRUM Program Management Plan was completed. Tri-Party Agreement Milestone M-91-07, *Complete Project W-113 for Post-1970 CH TRU/TRUM Retrieval*, due September 30, 2004, cannot be met as written due to current and outyear funding profiles. Replacement milestones will be prepared and proposed for negotiation. Successful trial burns are critical to the thermal treatment activity. Failure of the trial burns may delay the start of thermal treatment.



Richland Environmental Restoration Project

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# TPA Quarterly Review



*Tri-Party Agreement*

U.S. Department of Energy  
U.S. Environmental Protection Agency  
Washington State Department of Ecology

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**June 27, 2000**

# **ENVIRONMENTAL RESTORATION PROJECT**

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- Groundwater/Vadose Zone Integration Project
- Decommissioning Projects
- Surveillance/Maintenance and Transition Projects
- Program Management & Support – ERC

### **4. CURRENT ISSUES**

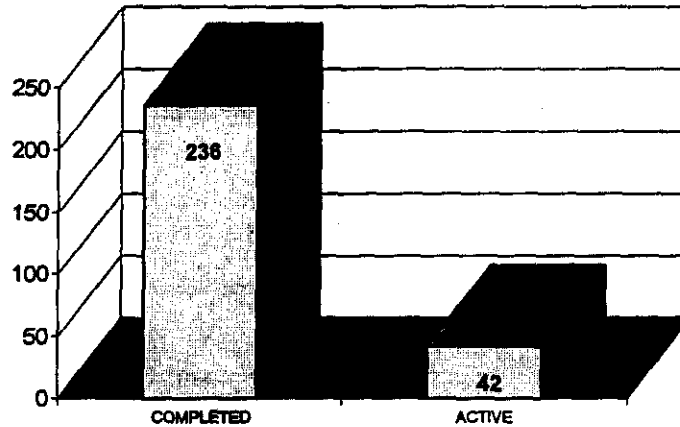
### **5. TECHNOLOGY INSERTION POINTS (TIPs)**

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- Overview
- TPA Schedule
- Project Performance

# ENVIRONMENTAL RESTORATION PROJECT

**TPA Milestone Statistics**  
Major & Interim (Excludes Target Milestones)

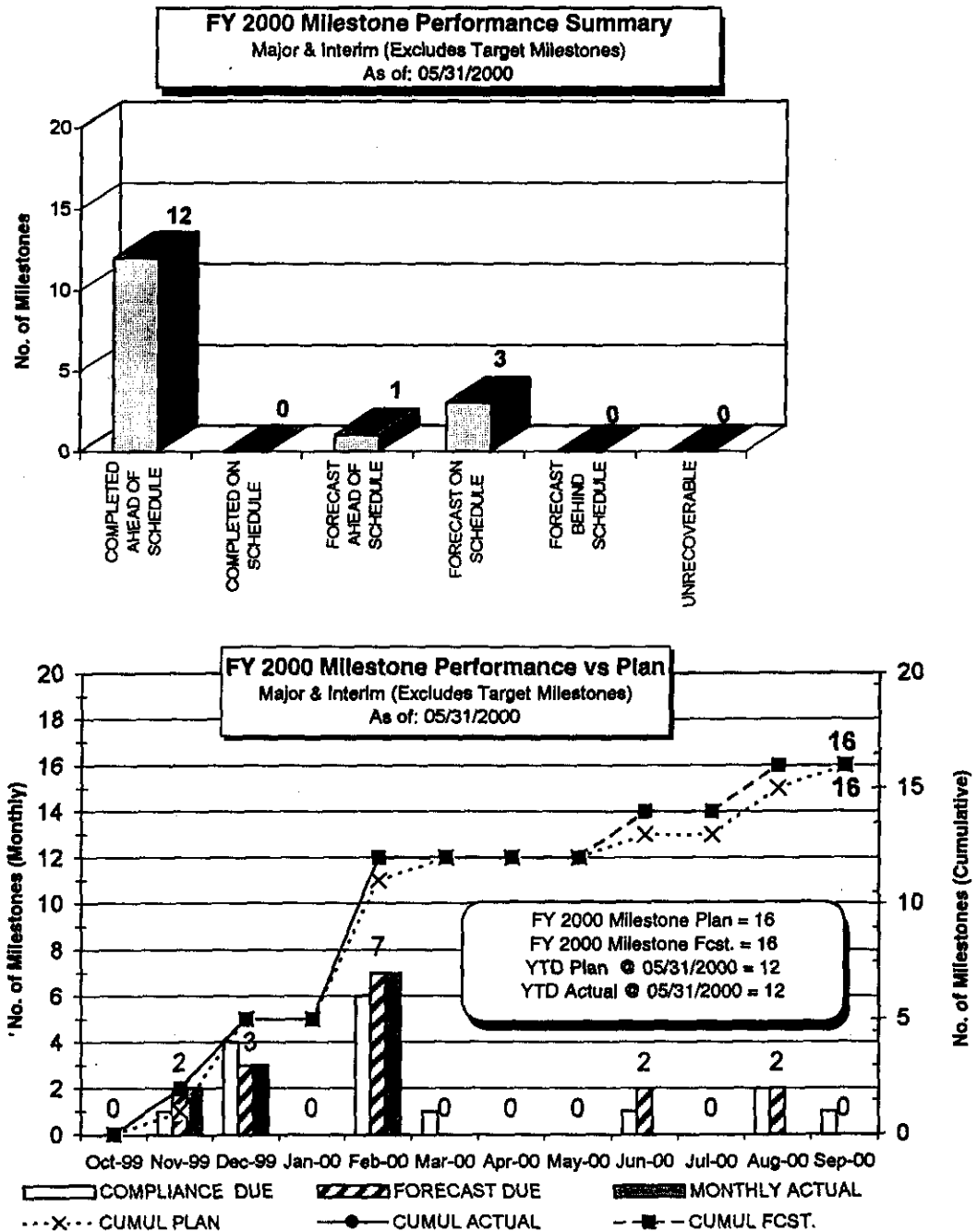


	Compliance Due Date	Total Active @ 5/00	Milestone Number	Compliance Due Date	Milestone Number	Compliance Due Date
<b>M-13-00</b> Submit Work Plans for RFI/CMS or RI/FS Studies (Groundwater/Vadose)	12/31/2005 (M-13-00P)	10	M-13-22 (C) M-13-23 M-13-24 M-13-25 M-13-00K	12/31/99 8/31/00 8/31/00 12/31/00 12/31/00	M-13-26 M-13-00L M-13-00M M-13-00N M-13-00O M-13-00P	6/30/01 12/31/01 12/31/02 12/31/03 12/31/04 12/31/05
<b>M-15-00</b> Site Investigations / Feasibility Studies (Groundwater/Vadose)	12/31/2008 (M-15-00C)	2	M-15-23B (C) M-15-00A (C) M-15-00B (C) M-15-00 M-15-00C	11/30/99 12/31/99 12/31/99 12/31/08 12/31/08		
<b>M-16-00</b> Remedial Design / Remedial Action (Remedial Action)	9/30/2018 (M-16-00)	14	M-16-02B (C) M-16-08B (C) M-16-13A M-16-03E M-16-26B M-16-26C M-16-07B M-16-00F	12/31/99 3/31/00 9/29/00 12/31/00 2/28/01 5/31/01 7/31/01 12/31/01	M-16-03A M-16-10A M-16-13B M-16-00 M-16-01 M-16-03F M-16-00A M-16-00B	6/30/02 8/1/03 10/29/04 9/30/18 TBD TBD TBD TBD
<b>M-20-00</b> Submit Closure Plans for All RCRA TSD Units (Groundwater/Vadose)	(Shared with PHMC) 2/28/2004 (M-20-54)	5	M-20-39 M-20-33 M-20-52 M-20-53 M-20-54	2/28/03 10/31/03 12/31/03 12/31/03 2/28/04		
<b>M-24-00</b> RCRA Groundwater Monitoring (Groundwater/Vadose)	12/31/2003 (M-24-00C)	4	M-24-41 (C) M-24-42 (C) M-24-43 (C) M-24-44 (C) M-24-45 (C)	2/29/00 2/29/00 2/29/00 2/29/00 2/29/00	M-24-00K(C) M-24-00L M-24-00M M-24-00N M-24-00O	2/29/00 12/31/00 12/31/01 12/31/02 12/31/03
<b>M-70-00</b> ERDF Operational	7/01/1996A (M-70-00)	0				
<b>M-93-00</b> Reactors on River Final Disposition (Decommissioning)	TBD (M-93-00)	7	M-93-05 M-93-12 M-93-10 M-93-11	6/30/00 2/28/02 7/31/03 9/30/03	M-93-14 M-93-06 M-93-15	6/30/03 TBD 12/31/03
<b>TOTAL</b>	(C) COMPLETED SINCE 10/99		12			



# ENVIRONMENTAL RESTORATION PROJECT

## FY 2000 TPA MILESTONE PERFORMANCE



# ENVIRONMENTAL RESTORATION PROJECT

## FY 2000 TPA MILESTONE SUMMARY (Excludes Target Milestones)

Item	FY2000 Month	Milestone	Description	Compliance Due Date	Forecast/ Actual Date	Completed		Forecast			Unrecoverable	Deleted
						Ahead Schedule	On Schedule	Ahead Schedule	On Schedule	Behind Schedule		
1	Nov-99	M-15-23B	Submit 300-FF-2 Focus Feasibility Study (FFS) and Proposed Plan (PP) for Regulator review.	11/30/99	11/22/1999 (A)	X						
2	Dec-99	M-13-22	Submit U Pond/Z-Ditches Cooling Water Group Work Plan	12/31/99	12/14/1999 (A)	X						
3		M-15-00A	Complete all remaining 100 Area Operable Unit pre-ROD site investigations under approved Work Plan schedules (100-KR-2, 100-KR-3, 100-FR-2, 100-IU-2, and 100-IU-6).	12/31/99	12/21/1999 (A)	X						
4		M-15-00B	Complete all 300 Area Operable Unit pre-ROD site investigations under approved Work Plan schedules.	12/31/99	11/22/1999 (A)	X						
5		M-16-92B	ERDF cells 3 & 4 ready to accept remediation waste.	12/31/99	12/09/1999 (A)	X						
6	Jan-00	C-10-07	The Hanford Site Waste Management Units Report	01/31/00	01/25/2000 (A)	(Compliance Milestone not included in total count)						
7	Feb-00	M-24-00K	Install RCRA Groundwater Monitoring wells at the rate of up to 50 in CY99 if Required.	02/29/00	02/17/2000 (A)	X						
8		M-24-41	Install three (3) additional RCRA wells for the SST WMA S-SX.	02/29/00	02/17/2000 (A)	X						
9		M-24-42	Install one (1) replacement well for the 216-S-10 Pond.	02/29/00	02/17/2000 (A)	X						
10		M-24-43	Install one (1) Additional RCRA well for the SST WMA TX-TY.	02/29/00	02/17/2000 (A)	X						
11		M-24-44	Install one (1) RCRA well for the 216-B-3 Pond (This is an extension of a CERCLA vadose borehole).	02/29/00	02/17/2000 (A)	X						
12		M-24-45	Install two (2) additional RCRA wells for the SST WMA B-BX-BY.	02/29/00	02/17/2000 (A)	X						
13	Mar-00	M-16-08B	Complete remediation and backfill of 19 waste sites in the 100-BC-1 and 100-BC-2 Operable Units as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area.	03/31/00	02/25/2000 (A)	X						
14	Jun-00	M-93-05	Issue B Reactor Phase II Feasibility Study Engineering Design Report for public comment.	06/30/00	06/30/2000 (F)				X			
15	Aug-00	M-13-23	Submit 200-TW-1 Work Plan.	08/31/00	08/31/2000 (F)				X			
16		M-13-24	Submit 200-TW-2 Work Plan.	08/31/00	08/31/2000 (F)				X			
17	Sep-00	M-16-13A	Initiate Remedial Action in the 100-FR-1 Operable Unit	09/29/00	08/01/2000 (F)			X				
TOTAL FY 2000 TPA Milestones				16	12 (A); 4 (F)	12	0	1	3	0	0	0

Approved TPA Change Package M-16-99-02 (Rev 1) removed Milestone M-16-26C from FY 2000.

Approved TPA Change Package M-16-00-01 removed Milestone M-16-07B from FY 2000.

**ENVIRONMENTAL RESTORATION PROJECT**  
**TPA Change Requests (March - May 2000)**

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**Pending Change Control**

**M-24-00-01A**  
**RCRA Groundwater**  
**Monitoring**  
**Pending**

This change request establishes calendar year 2000 and initial calendar year 2001 interim milestones for RCRA well installation.

The following RCRA well locations are in support of Milestone **M-24-00L**, "Install RCRA Groundwater Monitoring Wells at the Rate of Up to 50 in Calendar Year 2000 (If required)", to be completed by December 31, 2000:

**M-24-46** - Install 2 Wells in WMA S-SX: 1 Upgradient Well and 1 Downgradient Well

**M-24-47** - Install 4 Wells at WMA T: 4 Downgradient Wells

**M-24-48** - Install 4 Wells in WMA TX-TY: 4 Upgradient Wells

The following RCRA well locations are in support of Milestone **M-24-00M**, "Install RCRA Groundwater Monitoring Wells at the Rate of Up to 50 in Calendar Year 2001 (If required)", to be completed by April 30, 2001:

**M-24-49** - Install 4 Wells in WM S-SX: 1 Upgradient Well and 3 Downgradient Wells

**M-24-50** - Install 1 Well in WM TX-TY: 1 Downgradient Well

**M-16-00-xx**  
**ISRM Well**  
**Drilling/Barrier**  
**Emplacement**  
**Pending**

This change request adds new Interim Milestones M-16-27A, M-16-27B, and M-16-27C in support of the In Situ Redox Manipulation Barrier in the 100 D Area:

**M-16-27A (12/29/00)** Complete Phase I ISRM Barrier Emplacement (Planning, Well Installation, Barrier Emplacement)

**M-16-27B (12/28/01)** Complete Phase II ISRM Barrier Emplacement (Planning, Well Installation, Barrier Emplacement)

**M-16-27C (09/30/02)** Complete Phase III ISRM Barrier Emplacement (Planning, Well Installation, Barrier Emplacement)

**Bold/Underlined = Added and Text Changes**

**~~Strike Through = Text Deletions~~**

# **STATUS BY PROJECT**

## **REMEDIAL ACTION AND WASTE DISPOSAL PROJECT**

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### **B/C Area Remediation (M-16-26B)**

- All FY00 remediation work scheduled for the 100 B/C Area has been completed. During FY00, the Group 1 high-priority, near-river waste sites and the Group 3 small waste sites were completed.
- A procurement package for B/C pipeline remediation is being prepared. A Request for Proposal is scheduled to be ready by August with procurement and subcontractor selection to be completed early in FY01. A start date for remedial action will be determined during the FY01 detailed work plan process.

### **D Area Remediation**

- Excavation of pipelines and waste sites is nearing completion at the 100 D Area. Only excavation of plumes remains.
- Backfill subcontractor began mobilizing equipment. Approval to backfill the east/west portion of the north pipelines was received from the regulators on May 2. Backfill activities were completed at six DR high-priority, near-river (Group 2) waste sites in March. Backfill of the pipelines within 100 feet of the DR Reactor was completed in April.

### **F Area Remediation (M-16-13A)**

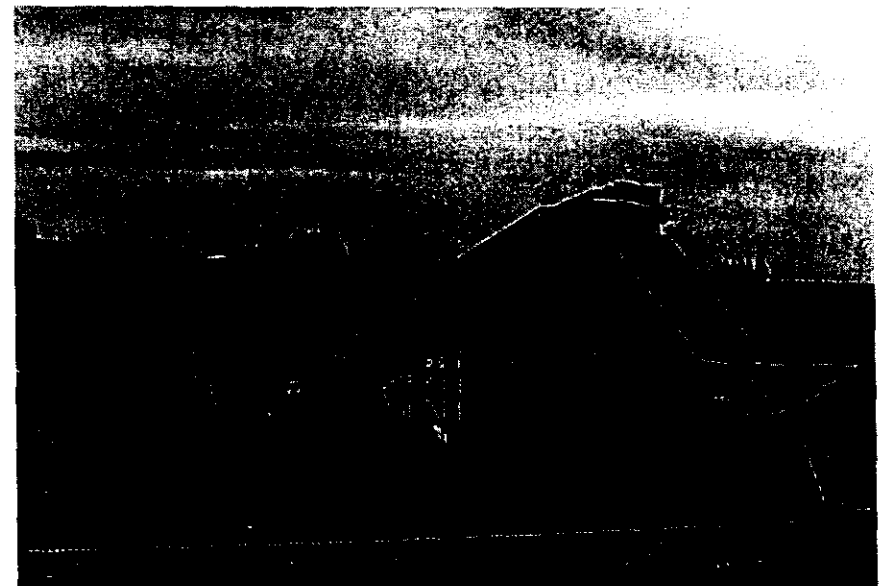
- Additional construction equipment was mobilized to support the 100 F Area infrastructure construction.
- Final grading for the 100 F Area queue, frisking test, equipment laydown, and support areas was completed. Hauling of crushed rock began.

### **H Area Remediation (M-16-26C)**

- All baseline excavations, except for the 100-H-24 substation, are complete in the 100 H Area. Excavation of two large plumes will extend the schedule to August.
- Lead contamination was detected in soil samples collected from the 1607-H-2 septic tank waste site in concentrations

ranging from 8.2 mg/kg to 48.5 mg/kg. These concentrations meet the remedial action goal (RAG) for direct exposure (353 mg/kg). However, the soil RAGs for lead protection of groundwater and the Columbia River need to be verified and a vertical profile completed. Therefore, a test pit was dug and vertical profile samples were taken to quantify the depth of the elevated lead concentrations.

- The arsenic issue identified in December 1999 was resolved with Ecology approving the increased remedial action goal (RAG) of 20 mg/kg. A BCP was approved to incorporate the associated schedule delays as a result of the arsenic issue. The impact to the TPA Milestone M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites and Pipelines in the 100-HR-1 Operable Unit, by May 31, 2001, will slip by approximately six months. A TPA change package will be initiated.



## REMEDIAL ACTION AND WASTE DISPOSAL PROJECT

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### 100 N Area Remediation

- A remedial action subcontract was awarded on April 13 for 100 N Area remediation. Mobilization activities are underway. Soil remediation is on schedule to begin in July to meet the requirements of the Hanford site RCRA permit.
- A Management of Change (MOC) document is being prepared to revise the 116-N-3 Auditable Safety Analysis. Excavation of 116-N-3 cannot begin without RL approval of this MOC.
- Review comments on the *Remedial Design Report/Remedial Action Work Plan (RDR/RAWP)* were received on May 15. The document will be revised in response to the comments and is planned for completion in early June. Internal review of the 100% design drawings for the 116-N-1 crib and trench was completed on May 17. Revisions are planned to be completed by mid-June.

### 100 Area Burial Ground Record of Decision

- The *Proposed Plan for the 100 Area Burial Grounds Interim Remedial Action, Rev. 1*, was transmitted to RL on May 17. The 30-day public comment period began May 22 through June 20, with a public meeting planned in Hood River, Oregon on June 14.

### 300 Area Remediation

- The remaining FY00 excavation/remediation activities at 300-FF-1 are nearing completion. The subcontractor has started primary site demobilization. Landfill 1A/1B hotspots, South Process Pond, pipeline excavation work and loadout of Landfill 1D soils are scheduled to be completed by early July with final demobilization activities to be complete by mid-July.
- Excavation of contaminated soil around a utility pole in the southern berm of the South Process Pond was completed. This was followed by backfill with below cleanup level soils.

The work was performed on a Saturday to minimize impacts to several 300 Area facilities affected by the planned power outage.

- Approximately 35 tons of excess steel rail was released to a local railcar repair facility for reuse. This rail was removed from the western boundary of the South Process Pond last year to accommodate remediation of contaminant plumes that extended beneath two railroad sidings. Reuse of this rail was coordinated through RL's economic development and waste minimization programs.
- Comment resolution for Draft B of the *300-FF-2 Operable Unit FFS and Proposed Plan* continued through May. The public comment period is scheduled to begin in mid-June.

### ERDF Operations

- In preparation for receiving waste from N Cribbs and K Basins, the ERDF safety analysis was revised to incorporate radionuclides that are unique to these two waste streams. In conjunction with discussions with RL's Safety Basis Analysis Group, a Management of Change (MOC) to the ERDF safety analysis was drafted. This MOC will be the first one issued under new guidelines that require RL approval of MOCs.
- Draft waste shipping and receiving plans were prepared for the two initial waste streams expected from the K Basin cleanout work. Initial delivery of the waste is expected in June.
- On May 11, ERDF Transportation completed 4 million safe miles of waste hauling. This major milestone encompasses all remediation work since the first waste shipment was transported to ERDF in 1996.
- 458,468 tons have been received in FY00 (5% more than the 434,364 tons planned). To date, 2,362,144 tons of material have been received and placed in the disposal facility (1% more than the 2,338,040 tons planned).

## GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

### Groundwater/Vadose Zone Integration Project

- Three open Integration Project meetings were held during March and April. Other Project meeting participation included the Hanford 100 Area Workshop, HAB-ER Committee meeting, and a Dollar and Sense Committee meeting. In May, Project briefings were conducted for HQ management and members of Senator Wyden's staff in Washington D.C.
- An Expert Panel meeting was held on May 24-26 to review the Integration Project's progress since the panel last met in January.
- The Semi-Annual Groundwater/Vadose Zone Report to Congress was completed on May 31. This report satisfied a FY00 management commitment milestone.
- Science and Technology Roadmap Rev. 1 was completed in May. This document incorporated revisions to Inventory, Vadose Zone, Groundwater, River technical elements, and added the Risk element in the WMA S-SX field investigation report. The Roadmap also provides the basis for the FY01 workscope.
- Draft A of the System Assessment Capability (SAC) Rev. 0, Assessment Description, Requirements, Software Design, and Test Plan was submitted to RL in May. Reviews were completed for the SAC design document focus sheet, in preparation for public and regulatory comment and management reviews that are scheduled for June.
- Meetings were held in May with the Nez Perce Tribe and the regulators to discuss FY01-03 Detailed Work Plan assumptions and the SAC.

### Groundwater Management (M-24-00L)

- Routine well drilling, maintenance and groundwater monitoring continued. Well sampling is behind schedule due to labor contract issues; increased staff and a recovery schedule has



been implemented.

- FY00 In Situ Redox Manipulation (ISRM) well drilling was completed in the 100 D Area on April 24, with a total of 16 wells drilled and installed to a planned depth. The design for the ISRM evaporation pond was completed in May, and the construction bid package was issued for bid. The Remedial Design Report/Remedial Action Work Plan was also issued to RL and Ecology for review and concurrence in May.
- In March, a draft response letter was prepared addressing Governor Locke's inquiry about the 618-11 Burial Ground tritium investigation. Draft A of the Data Quality Objective (DQO) Report was finalized and will provide the basis for the Phase II tritium investigation scope.
- The number and locations of wells have been determined for calendar year 2000 RCRA well installation. Currently, TPA Milestone M-24-00L is in dispute resolution awaiting change request approval. (see Issues)

## GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

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### Groundwater Management (continued)

- All groundwater pump and treat systems operated above the planned 90% availability levels through May. Since system inception, the five pump and treat systems have processed over 3.9 billion liters of groundwater, removing 4,179 kilograms of carbon tetrachloride, 173 kilograms of chromium, and 0.826 curies of strontium. Approximately 683 million liters of groundwater have been processed in FY00, removing approximately 775 kilograms of carbon tetrachloride, 41 kilograms of chromium, and 0.120 curies of strontium.
  - **100-HR-3 Pump and Treat System.** Approximately 27.4 million liters of groundwater were processed in May removing approximately 0.9 kilograms of chromium. 180.8 million liters have been processed in FY00, with 17.9 kilograms of chromium removed. Approximately 832.4 million liters of groundwater have been processed from inception to date, with 82.1 kilograms of chromium removed.
  - **100-KR-4 Pump and Treat System.** Approximately 20.4 million liters of groundwater were processed in May removing approximately 2.2 kilograms of chromium. 189.4 million liters have been processed in FY00, with 22.9 kilograms of chromium removed. Approximately 714.8 million liters of groundwater have been processed from inception to date, with 91.3 kilograms of chromium removed.
  - **100-NR-2 Pump and Treat System.** Approximately 8.3 million liters of groundwater were processed in May, removing approximately 0.014 curies of strontium. 67.1 million liters have been processed in FY00, with 0.120 curies of strontium removed. Approximately 490.0 million liters have been processed from inception to date, with 0.826 curies of strontium removed.
- **200-UP-1 Pump and Treat System.** Approximately 7.3 million liters of groundwater were processed in May removing approximately 51.7 million liters in FY00. From inception to date, approximately 407.4 million liters have been transported to the Effluent Treatment Facility (ETF) for processing. 343.0 million liters were previously processed prior to utilizing the ETF.
- **200-ZP-1 Pump and Treat System.** Approximately 20.9 million liters of groundwater were processed during May, removing 91.8 kilograms of carbon tetrachloride. 193.6 million liters have been processed in FY00, with 774.8 kilograms of carbon tetrachloride removed. From inception to date, approximately 1.15 billion liters have been processed, with 4,179 kilograms of carbon tetrachloride removed.
- **200-ZP-2 Vapor Extraction System.** The 200-ZP-2 soil vapor extraction system was placed off-line for FY00, in order to monitor and evaluate any rebounding of contaminant to static conditions. The resulting data will be used to evaluate the effectiveness of remediation on contaminants within the vadose zone. The passive vapor extraction system (installed in selected vadose zone wells) is performing as designed. Monthly sampling has been implemented. (see Issues)

### 200 Area Assessment (M-13-23, M-13-24)

- The 200-CW-1 and 200-CS-1 Operable Unit RI/FS Work Plans (Rev. 0) were submitted to RL on April 24. The regulators also completed DQO reviews for 200-TW-1 and 200-TW-2.
- Review comments were received from the regulators for the 200-CW-5 U Pond/Z Ditches Cooling Water Waste Group RI/FS Work Plans in May.

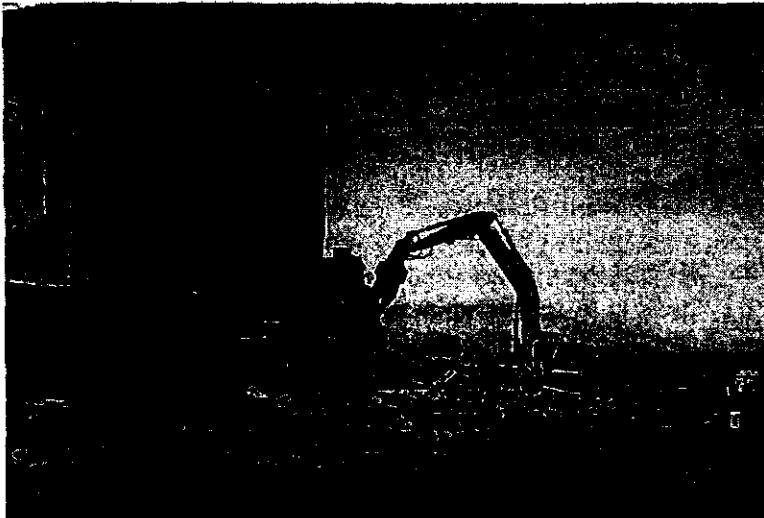


## DECOMMISSIONING PROJECTS

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### F and DR Reactors ISS

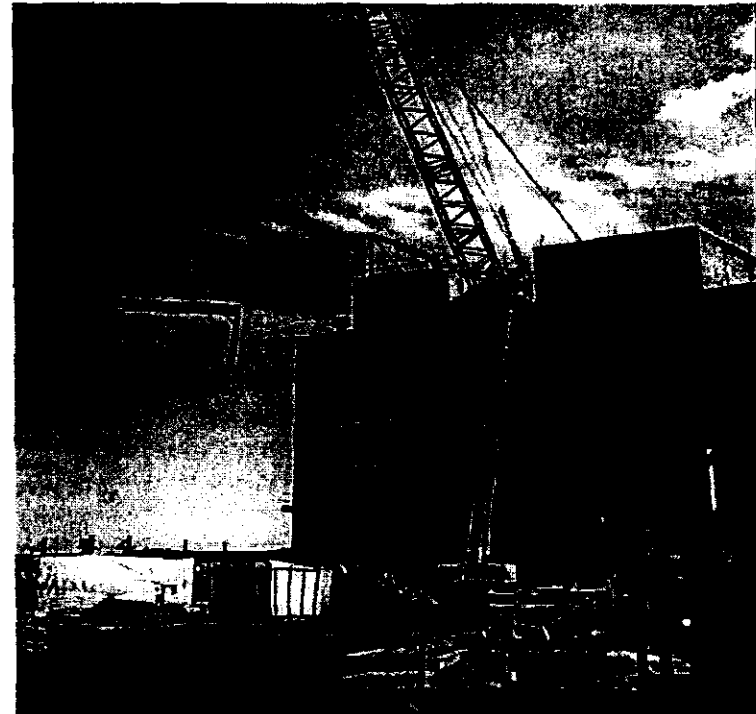
- All planned FY00 demolition scope was completed at F Reactor in February. Backfilling was initiated in the below-grade gas recirculation tunnel and plenum demolition areas in late May.
- Recommendations were presented to the regulators in January for accelerating removal of the F Reactor Fuel Storage Basin (FSB) clean fill material from FY03. Authorization for demolition of the FSB was approved in April. Engineering and planning are underway.
- Nine large concrete safe storage enclosure (SSE) pourbacks were completed at F Reactor.



- The F and DR Removal Action Work Plan (RAWP) was revised to incorporate the F Reactor fuel storage disposition plan and air monitoring plan. The RAWP was forwarded to the regulators on May 4.
- At DR Reactor, demolition and loadout activities were completed in the north reactor area in April. Demolition was also completed for the above/below-grade exhaust plenums,

south reactor sample rooms, and south gas recirculation tunnels. Demolition of the DR Reactor transfer bay and FSB began on May 31.

- Concrete SSE pourbacks are scheduled for June 20 at DR Reactor.



### D and H Reactors ISS

- The Engineering Evaluation/Cost Analysis (EE/CA) documents for the D and H Reactors, along with the Auditable Safety Analysis (ASA) document for D Reactor, were completed in March. Work was initiated on the H Reactor ASA in April.
- D and H Reactor pre-surveys were completed, and room-by-room walkdowns and estimates were completed in May.

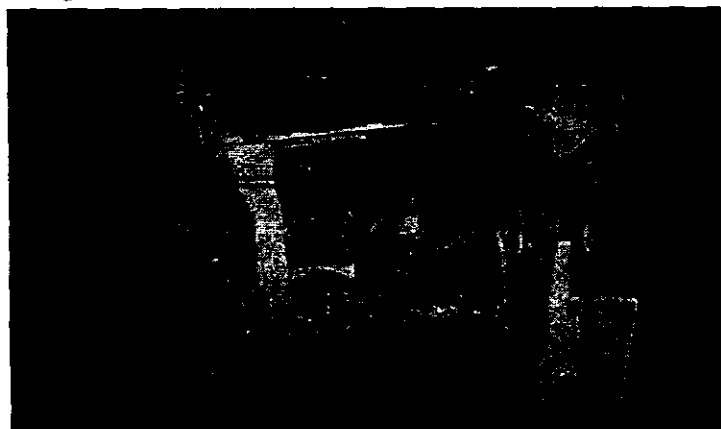
## DECOMMISSIONING PROJECTS

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- The Waste Management Plan for the D and H Reactors was approved. Biological cleanup of both reactors is scheduled in June.

### 233-S Plutonium Concentration Facility Decommissioning

- Substantial progress continues to be made at the 233-S facility even with the confined workspace environment and contamination hazards that are encountered during each entry. There were 307 entries into the 233-S facility during May.
- Dry cleanup and gross decontamination were completed for the process hood floor. A total of 51 polyjars (0.5 liter in size) containing loose material was collected.
- The first-floor electrical panels were removed in April. The viewing room stairwell conduit was also removed.



- The hardwood airlock installation was completed in the loadout hood room. Three ventilation holes were drilled in the loadout hood room, and two exhausters were installed to support localized exhaust.
- Fall protection for PMMA panel removal was installed. Through May, 16 PMMA panels had been removed from the first and

third floors. The nuts and hold-down strips are being prepped in advance to expedite panel removal.

- Four large supply duct sections (92 feet) were removed from the 233-S facility roof and shipped to ERDF. The new work approach that allows removal of larger duct sections has improved efficiency and lowered worker safety risk.

### Balance of Decommissioning Projects (M-93-05)

- Assessment activities were initiated at the 224-B Plutonium Concentration Facility in March. However, due to higher priority work and high contamination levels, ER management (with regulator concurrence) provided direction in April to discontinue any further decommissioning activities in the 224-B facility this fiscal year. A BCP will be submitted to close out the remainder of the FY00 224-B activities.
- The 60% draft *B Reactor Museum Phase II Feasibility Study* was reviewed on April 20 by B Reactor Museum Association and RL. The 90% feasibility study document was submitted for review on May 16. Additional engineering support was obtained to assist with the ROM estimates for hazard identification that was outside the original scope. The additional hazard identification was requested by the regulators. TPA Milestone M-93-05, *Issue B Reactor Phase II Feasibility Study Engineering Design Report for Public Comment*, is due June 30.

### 300 Area Acceleration Closure Project (ACP)

- A 300 Area ACP kickoff meeting was held on April 10 with FH. D&D quantity takeoffs, walkdowns, and estimates were completed in May. Draft sections of the D&D Technical Volume were also completed.

## SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS

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### S&M Activities

- The design package reviews were completed in March for the water treatment plant replacement system for the N Reactor site. The acceptance test was completed in May for the water plant.
- The readiness assessment for planned stabilization activities in the Reduction Oxidation (REDOX) Facility plutonium loadout hood was completed.
- The REDOX railroad cut (sloped entry into the building) interim stabilization and backfilling activities were completed. Backfill and radiation area downposting were also completed for all of the outdoor contamination areas around REDOX.



- The REDOX 195-S seal pots and sump investigation work was completed in April.
- Work progressed for the passive vents source elimination at the Radiation Area Remedial Action (RARA) sites. 39 out of 84

passive vents have been sealed through May.

- The RARA Annual Report and ERC spring revegetation activities were completed in March.
- Herbicide was applied to 503 acres of waste sites for Russian thistle control in April.
- Approximately 75 trees (cottonwood and locust) were planted along the Columbia River to aid in mitigation of 100 N Area mulberry bushes.

### Canyon Disposition Initiative (CDI)

- 19 of the planned 26 cells have been accessed at the U Plant (221-U Building) canyon facility during FY00. Ongoing CDI activities include moving equipment off the cell cover blocks, lifting the cell blocks, videotaping the cell contents, and utilizing a gamma camera to take radiological profiles of the cells. Railroad tunnel door repair activities were also completed.
- A Brokk™ coring machine was received in April, and training was completed in May. This equipment will take concrete core samples inside the CDI access cells, and will be remotely operated by the canyon crane. Work was initiated on the drain pipe header characterization, which will also be remotely operated.

### KE/KW/H Reactors

- The legacy waste removal activities were completed at both KE and KW Reactors in May. The project was verified to be satisfactorily completed by RL field inspection of the work sites and review of work packages and shipping documents.
- Legacy waste removal was initiated at H Reactor in May.
- Work packages were completed for the KE/KW acid tank stabilization work activities.

## **PROGRAM MANAGEMENT & SUPPORT - ERC**

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### **COMPLIANCE, QUALITY, SAFETY & HEALTH**

#### **Compliance and Quality**

- The annual 200 West Area inspection was conducted by site contractors and Ecology in March. The inspection is a requirement of the site-wide RCRA permit. No concerns or violations were noted as a result of the inspection.

#### **Safety and Health**

- ERC reached one million hours without a lost workday injury on May 22. This is the fourth time that ERC has achieved this milestone since it began work at Hanford in July 1994.
- During March, a team consisting of DOE-led government and contractor personnel conducted a verification audit on the ERC ISMS. The ISMS Phase II verification audit report was completed on March 22, with only minor issues noted.

### **ENGINEERING AND TECHNOLOGY**

- **Technology Applications.** ERC (Technology Applications and External Affairs), with assistance from FH and Pacific Northwest National Laboratory (PNNL), developed a large display for the Environmental Management S&T exhibit, "Strength through Science." The exhibit was held at Capitol Hill in Washington, D.C. in April, and was also exhibited at a trade press conference. The display showed technologies from all Hanford Site contractors and was on display in the House and Senate offices. The exhibit was viewed by congressmen, senators, staff, and HQ personnel, and was judged as one of the best among the DOE complex.
- **Environmental Technologies.** Five waste minimization targets were completed through May in conjunction with the FY00 waste reduction incentives.
- ERC was recognized by the Secretary of Energy with a

Certificate of Appreciation for contributions to DOE's mission to prevent pollution in operations, processes, and programs.

### **PROGRAM AND PROJECT SUPPORT**

- **Property Management.** The FY99 Procurement DOE-Complex Balanced Score Card (BSC) results indicated that BHI received the highest score (tied) in the DOE complex in four of the eleven categories tracked by DOE. The four categories were Customer Satisfaction, Effective Internal Controls, Employee Alignment, and Information Availability. This is the second year in a row that BHI received the highest score in four categories and includes a repeat performance in the "Customer Satisfaction" and "Information Availability" categories. This is especially significant since the number of major DOE facility contractors participating in the BSC process has almost doubled and now includes almost all of the major DOE complex contractors. In addition, for all of the remaining categories that BHI participated in, BHI's score was significantly above the DOE complex average.

### **PLANNING AND CONTROLS**

- **Baseline.** HQ's IPABS Part B budget formulation data for FY02 was completed in April. Hanford Site priorities were addressed with FH and RL.
- The FY01-03 Detailed Work Plan (DWP) Development Process Guidance document was issued.
- **Reporting.** The ERC FY00 Mid-Year Review Report was completed. A presentation was made to Hanford RL management and HQ personnel on May 8-9.

**ISSUES**

## **CURRENT ER PROJECT ISSUES**

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### **REMEDIAL ACTION AND WASTE DISPOSAL PROJECT**

- **300-FF-2:** Work is ongoing to prepare decision documents for the public review period scheduled for July. Ecology has issues with the preliminary remediation goals (PRGs) being developed for 300-FF-2. EPA, who supports the PRG's, will be addressing issues with Ecology with support from RL.

**Strategy/Status:** EPA and Ecology are in agreement on the PRGs. Public comment period is scheduled to begin July 2.

- **M-16-26B:** M-16-26B, Complete Remediation, Backfill, and Revegetation of 51 Liquid Waste Sites and Process Effluent Pipelines at B/C, DR, and HR, by February 28, 2001, will be missed due to lack of funding for 100 Area B/C pipelines and arsenic issue at 100 H.

**Strategy/Status:** A resolution is required to be negotiated with the regulators. The path forward is to submit a TPA change package to the regulators for review and evaluate outyear funding and priorities. A baseline change proposal (BCP) requesting funding to finalize a procurement package for remediation of B/C pipelines was approved on May 16. A Request for Proposal (RFP) is scheduled to be ready by August with procurement and subcontractor selection to be completed early in FY01. A start date for remedial action will be determined during the FY01 detailed work plan process.

- **M-16-26C:** M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit, due May 31, 2001, will be missed due to the unanticipated elevated arsenic levels encountered during confirmation sampling and verification activities (lead arsenate pesticides were used on pre-Hanford agricultural areas).

**Strategy/Status:** After completing additional arsenic sampling throughout the 100 Areas, Ecology has agreed to use the Washington state background value of 20 mg/kg for arsenic. A baseline change proposal (BCP) was approved that addressed the scope change. A TPA change package will be initiated.

### **GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT**

- **Monitoring Wells:** Tritium investigation is being conducted near the 618-11 Burial Ground.

**Strategy/Status:** Results of the Phase I characterization have been reviewed and compiled in a PNNL report. Draft A of the DQO Report for Phase II efforts will be reviewed by the regulators. A work document for field implementation is being prepared.

- **200-ZP-2:** Regulatory agencies desire continued operation of the 200-ZP-2 vapor extraction unit (not included in DWP).

## CURRENT ER PROJECT ISSUES

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**Strategy/Status:** Project personnel met with EPA (Doug Sherwood), to discuss the need to restart ZP-2 pending completion of the cost estimate to perform the Partitioning Interwell Tracer Test (PITT) test. Decision has been made to proceed with the PITT test in lieu of restarting ZP-2 this fiscal year. PITT test estimate will be completed by the end of July, with management review to be completed by mid August.

- **200 Area RI/FS:** Approximately 800 soil contaminated sites (200 Area) grouped into 23 process-based operable units are to be characterized by 2008 and remediated by 2018. Currently, an out-year funding allowance of \$2M to \$3M has been added to the GW/VZ Project for 200 Area characterization work, but this is not sufficient to meet TPA milestones. Long-term, RL must decide a budgetary position toward assessment and cleanup of the 200 Area liquid waste sites. The regulator position is to submit TPA change packages for each operable unit work plan for enforceability in completing the RI through ROD based on existing TPA milestones.

**Strategy/Status:** DOE has prepared a draft TPA change package for the 200-CW-1 operable unit containing RI/FS milestones for FY00 only. DOE is also working on how to address the need for TPA change package proposals for the other work plans that require a proposed TPA change package in order to gain necessary regulatory approval of the work plan. In addition, DOE is currently working on ways to revise the existing long-term strategy for prioritizing the 200 Area assessment and remediation activities in conjunction with other site cleanup decisions. RL management plans to meet with the regulators to discuss the approach to this work.

- **Off-Site Resin Regeneration on Hold.** (U.S. Filter violations – 7 total)

**Strategy/Status:** Vendor recently inspected, violations identified, and Enforcement Conference completed on March 15. EPA CERCLA off-site authorization to use facility has been granted. Shipments have commenced.

- **M-24-00L - CY00 RCRA Compliance Well Installation:** The number and location of wells have been determined. However, the interim milestones are in dispute.

**Strategy/Status:** The change request establishing TPA interim milestones is still in dispute resolution (dispute resolution was extended to June 30). Ecology's TPA change request has been received and is in the final approval process. A BCP has been submitted based on a FY00 and a CY00 target date.

- **Waste Handling:** On May 31, a Notice of Correction (NOC) letter was received by RL from Ecology. This NOC detailed the violations and corrections regarding the shipments of mixed solid waste that contacted groundwater that contains listed waste (FY01 and FY03), and the drums of M-24 drilling waste at the Biosite.

On June 15, a letter was received from EPA identifying violations of CERCLA requirements with respect to waste management practices at 100-F, 100-K, 100-BC, 200-ZP-1, 300-FF-2 operable units. This letter also served as notice that the moratorium on disposal of investigation derived waste (IDW) into ERDF is no longer in place. EPA requires that all IDW shipments to ERDF be approved by EPA ERDF project manager until further notice.

## **CURRENT ER PROJECT ISSUES**

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**Strategy/Status:** Corrective actions identified in the letters are being addressed. Extensions have been granted by the regulators to allow time for resolution and response to identified items. Additional meetings have been held to move toward closure.

## **DECOMMISSIONING PROJECTS**

- **FY01 ISS Funding:** Partial funding in FY01, and no funding in FY02, will result in program suspension and loss of potential cost savings.

**Strategy/Status:** Need strategy to maintain critical resources and visible progress. In past two years, accelerated progress has been achieved through supplemental congressional funding.

- **D and H Reactor Impacts of TPA Milestones:** The acceleration of the reactor ISS projects is no longer consistent with the current M-93 milestones, especially the competitive procurement and renegotiating milestone (M-93-12) for DR.

**Strategy/Status:** Initial discussions with the regulators have started which may lead to formal negotiations in the near future.

- **DR Reactor Fuel Storage Basin (FSB):** Analytic results for the DR Reactor FSB indicate a potential problem with chromium +6 and polychlorinated biphenyl levels exceeding cleanup standard levels.

**Strategy/Status:** EPA and Ecology have agreed that the concentrations exceeded the standards by minimal amounts, and the basin need only be removed to the minus 15-foot level per the original plan.

- **D and H Reactor Engineering Evaluation/Cost Analysis (EE/CA):** The D and H Reactor EE/CA schedule required regulator reviews to be completed by April 19 to meet established Detailed Work Plan (DWP) goals. The EE/CA was completed in March.

**Strategy/Status:** EPA stated that it wants to address the TPA reactor milestones before approving an action memorandum for D and H Reactors. EPA indicated that the cost for the two reactors exceeded the cost threshold, and therefore would require review by the EPA Remedy Review Board. In order to expedite review and not exceed the cost criteria, a separate EE/CA for each reactor will be transmitted to RL and the regulators on June 15. ER will continue to work with EPA and Ecology to ensure an action memorandum can be issued by the end of FY00.

- **Demolition Equipment:** Demolition equipment (trackhoe excavators and shuttle truck) breakdowns continue to cause demolition schedule delays.



## **CURRENT ER PROJECT ISSUES**

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**Strategy/Status:** Mechanics continue to repair the equipment as quickly as possible. Impact sheets are being completed to track the delays. Problems/impacts were presented to RMT. Field Support developed an equipment priority list and was directed to prepare a procurement plan for a new excavator.

## **SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS**

- **B Plant/PUREX Roof Funding:** Ensure funding is provided by Facility Transition Project per MOUs to support roof repair commitments for B Plant and PUREX. Facilities were transitioned to ER with the commitment to fund these repairs from the releasing project.

**Strategy/Status:** Funding for roof repairs has not been included within the current above-the-line Integrated Priority List targets. The roof leaks based on last quarterly surveillance.

- **B Plant Stack Ventilation:** Problems with stack ventilation, retired filters, and other issues documented in letter, M.C. Hughes to R. Gerton, September 28, 1999, "Remaining Issues for the Transition of the B Plant Facility from EM-60 to EM-40".

**Strategy/Status:** Facility transferred to ERC September 30, 1999. MOA with open items assigned cost/schedule responsibility received September 30, 1999. Original MOA schedule not met. Fluor Hanford (FH) repaired the ductwork on May 2 and performed a leak test on the repaired areas. BHI issued a letter on May 3 to FH requesting additional information and testing be performed on the exhaust fan assembly in order to meet our minimum requirements to assure the repaired assembly will continue to operate correctly. FH has responded to the letter, and RL concurrence on acceptability is planned for the end of June.

- **CDI Funding:** EM-30 (Office of Waste Management) has indicated that funding (\$400K) will not be available for the CDI in FY00. EM-50 (Office of S&T) additional funding (\$700K) is also in question.

**Strategy/Status:** CDI funding issue is closed. The EM-30 funding shortfall was made up by EM-40 project efficiencies. Full EM-50 funding was received in April.

## **PROGRAM MANAGEMENT AND SUPPORT**

- **FY01 and FY02 Funding:** FY01 and FY02 ER funding (target) levels are below minimum compliance requirements. Updated FY01 President's budget assumes ER funding target at \$141.9M. While this funding level maintains a number of significant activities supporting site cleanup goals, it is far short of maintaining compliance with TPA/other regulatory commitments for the near term and especially beyond FY01. The recently submitted budget for FY02 targets ER at \$140.8M, which is again significantly short of supporting minimum compliance requirements for FY02 and beyond.

## **CURRENT ER PROJECT ISSUES**

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**Strategy/Status:** Maintain current TPA/regulatory commitments in FY00; develop impacts associated with directed funding targets for FY01 and FY02; and support DOE budget submittals and presentations, including discussions with regulators on projected future shortfalls and prioritization of allocated funding.

# **TECHNOLOGY INSERTION POINTS (TIPs)**

## ENVIRONMENTAL RESTORATION PROJECT

TIP Number	TIP Title	Date Issued	TIP Milestone	Description	PBS	Project Area	Need
TIP-0001 (Rev. 2)	Burial Ground Remediation (100 Area)	FY99	FY01	Currently, 45 burial grounds are scheduled for excavation. Improved characterization techniques are needed to identify contents and borders of burial grounds.	ER01	100 Area Remedial Action	RL-SS10
TIP-0002 (Rev. 2)	Soils and Burial Ground Remediation (200 Area)	FY99	FY01	Planning is underway for the 200 Area soils and burial grounds. The assessment of potential remedial action alternatives will consider technologies for excavation, capping, characterization, segregation, and treatment where necessary. Information on remedial alternatives is also needed to aid in comparative assessment.	ER02	200 Area Remedial Action	RL-SS10 RL-SS15 RL-SS17 RL-SS25
TIP-0003 (Rev. 3)	300-FF-2 Remediation (300 Area)	FY99	FY06	Planning is underway for the 300-FF-2 Operable Unit soils and burial grounds. The assessment of potential remedial action alternatives will consider technologies for excavation, characterization, segregation, and treatment where necessary.	ER03	300 Area Remedial Action	RL-SS10 RL-SS18
TIP-0004 (Rev. 2)	Strontium Remediation (100 Area Groundwater)	FY99	FY08	Current remedial action for the strontium plume is pump-and-treat to contain the plume such that strontium does not migrate into the Columbia River. Enhanced treatment through application of in situ remediation techniques (or improved pump-and-treat approaches) are being considered. The current approach is expensive and may not be cost effective as a permanent, final remediation strategy for the strontium plume.	ER08	Groundwater Management Project	RL-SS07 RL-SS09
TIP-0005 (Rev. 2)	Chromium Remediation (100 Area Groundwater)	FY99	FY03	The current Interim Response Measure (IRM) for the chromium plumes is pump-and-treat, to contain the plume such that chromium does not migrate into the Columbia River. More cost-effective treatment through application of in situ remediation techniques are being considered. The current approach is expensive and may not be as cost effective as a permanent, final strategy for all the chromium plumes.	ER08	Groundwater Management Project	RL-SS04 RL-SS06
TIP-0006 (Rev. 2)	Carbon Tetrachloride Remediation (200 Area Groundwater)	FY99	FY03	The current Interim Response Measure (IRM) for the carbon tetrachloride plume is pump-and-treat, to contain the plume within the 2000-to-3000 ug/L contour boundaries. The current approach would need to be expanded significantly and continued for several years to treat the entire plume. Enhanced treatment through application of in situ remediation techniques, or improved pump-and-treat approaches, are being considered as ways to speed remediation and reduce costs.	ER08	Groundwater Management Project	RL-SS01 RL-SS03

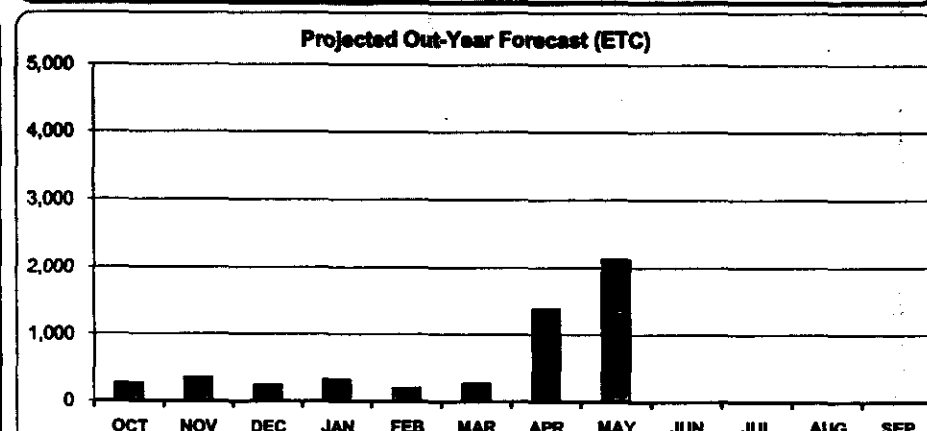
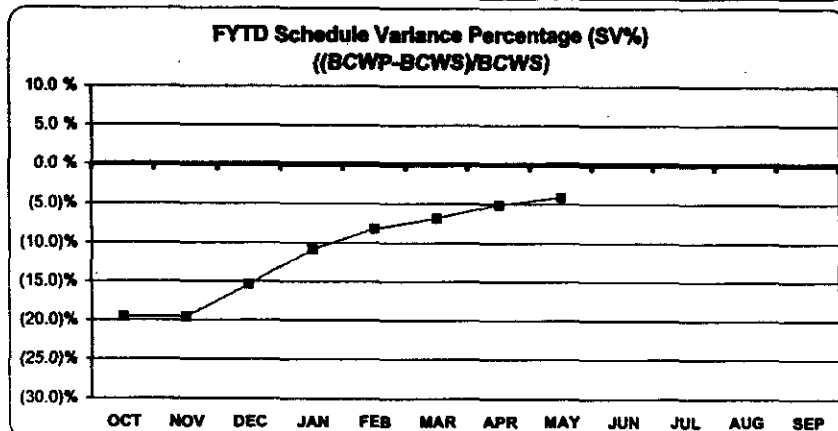
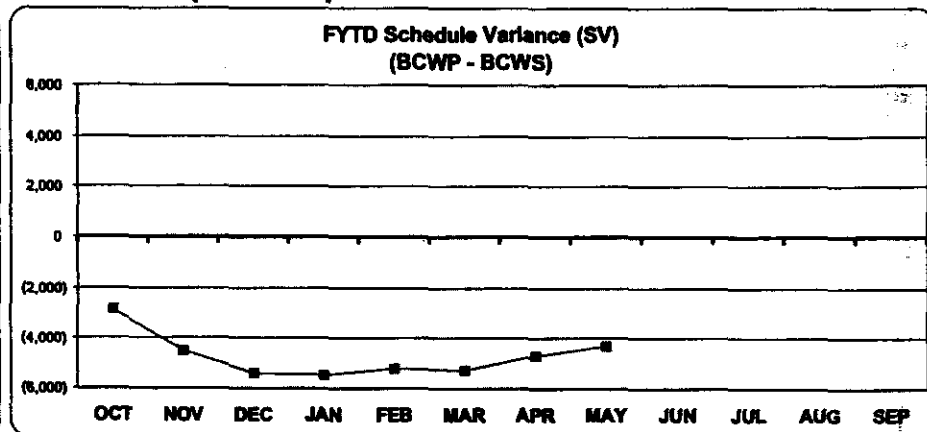
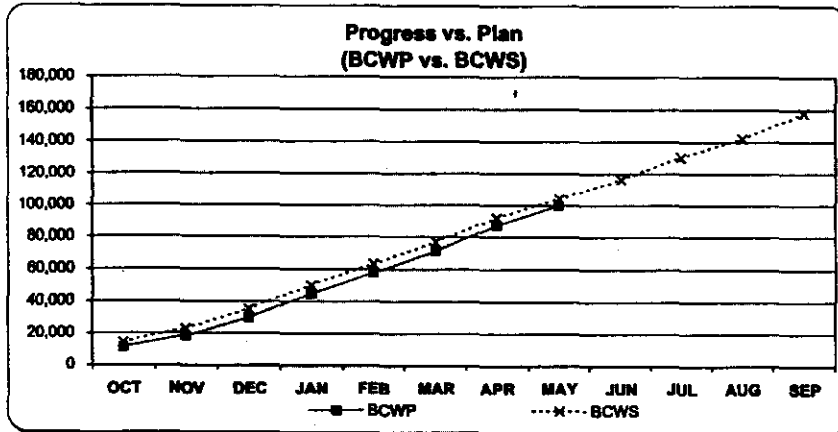
## ENVIRONMENTAL RESTORATION PROJECT

TIP Number	TIP Title	Date Issued	TIP Milestone	Description	PBS	Project Area	Need
TIP-0007 (Rev. 2)	Surface Barrier for CDI	08/04/99	FY06	A surface barrier design is needed for the Canyon Disposition Initiative (CDI) Project. The CDI Project will determine the end-state for the 221-U Facility. Several potential end-state alternatives will require a surface barrier. The surface barrier must protect against water infiltration, wind and water erosion, plant, animal, and inadvertent human intrusion. If an entombment alternative is selected, the surface barrier design will be required to provide for steep slopes (e.g., 1:3).	ER05	Surveillance and Maintenance	RL-DD051
TIP-0008 (Rev. 1)	Asbestos Abatement for 105-KE/KW/N	08/04/99	FY04	An improved method is needed for stripping asbestos from circular piping and rectangular ductwork ranging in sizes from 2" to 48".	ER06	Decontamination and Decommissioning	N/A
TIP-0009 (Rev. 1)	Expert System	08/04/99	FY07	An expert system is needed to support characterization of reactors for interim safe storage. The purpose of the system will be to compile and correlate the voluminous information from the characterization of the previous reactors. This information will form the basis for planning the minimal characterization required for future reactors. Functional requirements of the system include statistically assessing large data arrays from different perspectives in order to evaluate consistency with respect to various compliance criteria. By carefully assessing existing characterization data (radiation, chemical, metals, and physical) from similar areas, correlations may be discovered that will reduce or eliminate the need for costly/time-consuming sampling and analysis at future reactors.	ER06	Decontamination and Decommissioning	N/A
TIP-0010 (Rev. 1)	Heavy Concrete Demolition for 105-D/H	08/04/99	FY04	An improved technology is needed for the demolition of dense, reinforced, thick (i.e., 2 to 3 feet thick) concrete.	ER06	Decontamination and Decommissioning	N/A

# **COST/SCHEDULE STATUS**

## A. PROJECT OVERVIEW

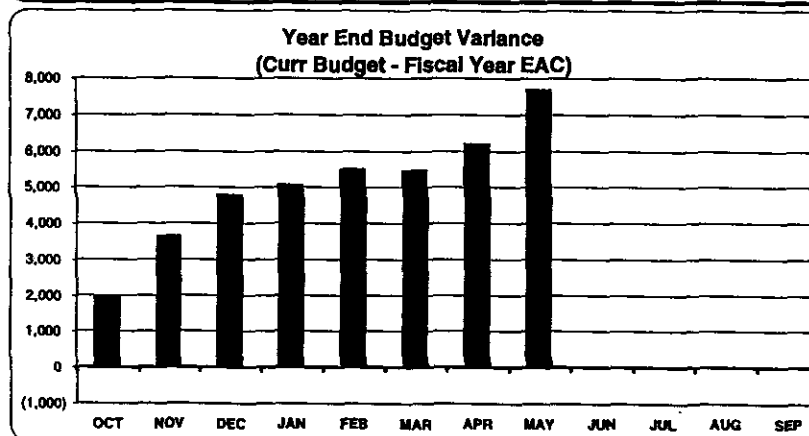
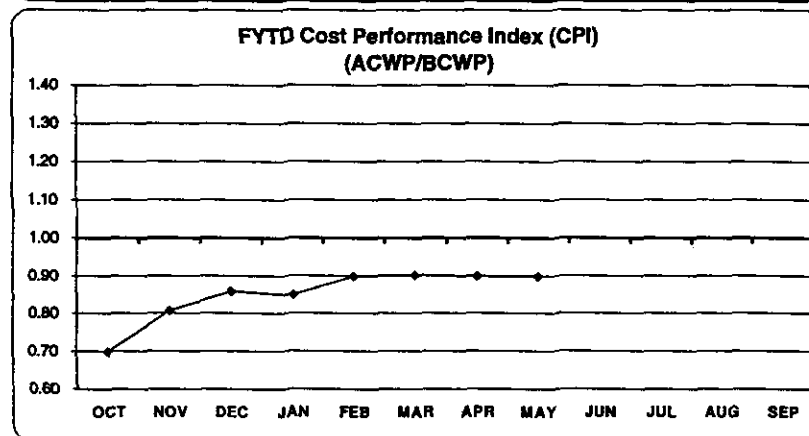
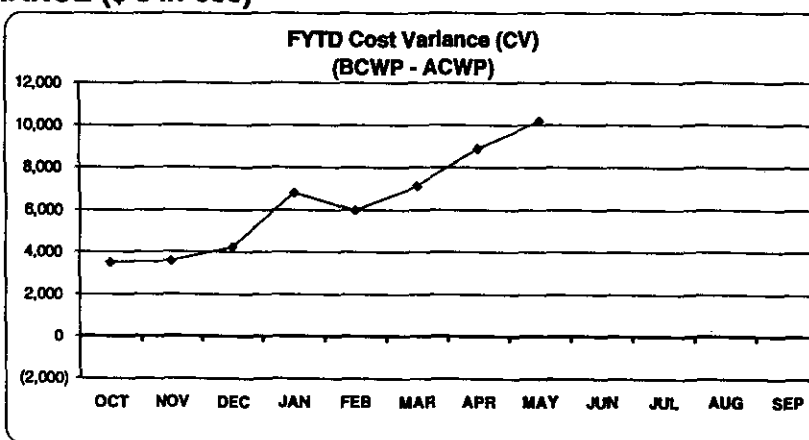
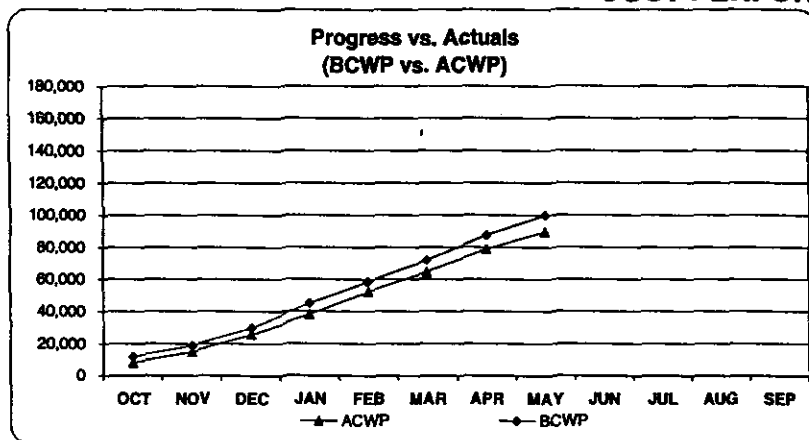
### SCHEDULE PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	11,612	10,506	10,211	12,760	10,155	10,793	12,259	10,599	10,197	12,389	10,820	12,798
DWP (Accum)	11,612	22,118	32,330	45,090	55,245	66,037	78,296	88,895	99,092	111,481	122,301	135,100
CURRENT PERIOD												
BCWS	14,558	8,506	12,288	15,102	13,068	13,445	15,190	12,158	12,028	14,392	11,524	15,580
BCWP	11,711	6,838	11,396	15,035	13,338	13,352	15,797	12,550	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	14,558	23,068	35,354	50,456	63,524	76,969	92,159	104,317	116,345	130,737	142,262	157,842
BCWP	11,711	18,550	29,946	44,981	58,320	71,672	87,469	100,019	-	-	-	-
SV	(2,847)	(4,516)	(5,408)	(5,475)	(5,204)	(5,297)	(4,690)	(4,298)	-	-	-	-
SV%	-19.6%	-19.6%	-15.3%	-10.9%	-8.2%	-6.9%	-5.1%	-4.1%	-	-	-	-
Yr End Sch Carry Over	268	353	240	320	192	270	1,385	2,128	-	-	-	-

## A. PROJECT OVERVIEW

### COST PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	8,190	6,786	10,729	12,465	14,171	12,199	14,037	11,240	-	-	-	-	-
BCWP	11,711	6,838	11,396	15,035	13,338	13,352	15,797	12,550	-	-	-	-	-
FISCAL YEAR TO DATE													
ACWP	8,190	14,976	25,705	38,170	52,341	64,540	78,577	89,818	-	-	-	-	-
BCWP	11,711	18,550	29,946	44,981	58,320	71,672	87,469	100,019	-	-	-	-	-
CV	3,521	3,574	4,240	6,811	5,978	7,131	8,892	10,201	-	-	-	-	-
CPI	0.70	0.81	0.86	0.85	0.90	0.90	0.90	0.90	-	-	-	-	-
EAC (Cumulative)	8,190	14,976	25,705	38,170	52,341	64,540	78,577	89,818	104,998	121,404	133,554	148,021	150,149
Yr End Budget Var	1,967	3,638	4,793	5,074	5,521	5,482	6,206	7,693	-	-	-	-	2,128



# ENVIRONMENTAL RESTORATION PROJECT

## Schedule Variance Report

Project	Variance	Reason	Impact	Corrective Actions
ER01 – 100 Area Remedial Action	\$353K	Favorable variance. Ahead of schedule on 100-DR-1 pipeline excavation, 100-HR excavations, and NR-1 crib remediation design and site prep.	None	
ER02 - 200 Area Remedial Action	(\$141K)	Miscellaneous assessment work rescheduled.	None	
ER03 - 300 Area Remedial Action	\$16K	Excavation of Landfill 1B is ahead of schedule; expect early completion.	None	
ER04 – Environmental Restoration Waste Disposal	\$471K	Ahead of schedule primarily due to 100-HR excavations, and 300 Area excavations being ahead of schedule.	None	
ER05 – Surveillance/ Maintenance & Transition	(\$414K)	(1) Delivery of new 100 N water treatment plant skid is 3 weeks behind schedule. (2) Weather delays in herbicide application. (3) Subcontract for Authorization Basis update split into three causing delays in award.	None	(1) Skid was delivered May 18 and installation continues; schedule variance continues to recover. (2) None. (3) None; schedule recoverable due to three suppliers.
ER06 – Decommissioning Projects	(\$471K)	233-S decommissioning; delay in removal of exhaust roof duct pending completion of scaffolding installation and decontamination, and fixative application of the process hood. Procurement of SWB waste containers is also behind schedule.	None	Exhaust duct removal is planned to start in July after completion of process hood decontamination. Waste containers are expected in July, and shipment of TRU to CWC is scheduled for August.

# ENVIRONMENTAL RESTORATION PROJECT

## Schedule Variance Report

Project	Variance	Reason	Impact	Corrective Actions
ER08 - Groundwater Management	(\$1,565K)	(1) ISRM material arriving later than originally planned. (2) Groundwater monitoring sampling collection and analysis (PNNL) fell behind schedule in October/November due to difficulties in obtaining NCO personnel and has not yet recovered. (3) Waste shipments to ERDF and resin regeneration at pump and treat units have been delayed due to waste disposition issue.	None	(1) None, material delivery will support ISRM injection work. (2) Additional NCOs have been added and a recovery schedule implemented; unexpected sampling at 618-11 Burial Ground will impact recovery timing; full recovery is not expected before summer. (3) Waste regeneration shipments have been scheduled through FHI.
ER10 - ERC Program Management and Support	(\$1,588K)	Late billing on site-wide assessments.	None	RL is discussing billing/timing with other site contractors.
VZ01- Site-Wide Groundwater/Vadose Zone Integration Project	(\$969K)	(1) Peer review subpanel meetings were rescheduled; formation of characterization core team delayed. (2) Resource availability has delayed System Assessment Capability development.	None	(1) Expect full recovery on peer review scheduling; core team established; deliverable extended by RL. (2) Subcontract staff has been added to supplement existing staff; expect recovery in July.
<b>Total</b>	<b>(\$4,298K)</b>			

# ENVIRONMENTAL RESTORATION PROJECT

## Cost Variance Report

Project	Variance	Reason	Impact	Corrective Actions
ER01 – 100 Area Remedial Action	\$4,044K	Savings in DR-1 subcontract costs due to asbestos abatement changes and sampling efficiencies; FR savings in site prep and staff reductions by reallocating forces between F and H Area; labor savings on B/C backfill activities; waste minimization and drilling savings at HR near-river excavation sites.	Cost underrun	Savings will be used to perform other remediation work.
ER02 – 200 Area Remedial Action	\$987K	Efficiencies learned in prior work were applied to Gable Mountain and B Pond test pit trenching resulting in savings. Borehole drilling was combined with RCRA drilling resulting in cost savings.	Cost underrun	Savings will be used to perform other remediation work.
ER03 - 300 Area Remedial Action	\$1,745K	Management and administrative cost efficiencies at Landfills 1A/1B, and FY99 accrual reversal in South Process Pond remediation.	Cost underrun	Savings will be used to perform other remediation work.
ER04 - Environmental Restoration Waste Disposal	\$1,868K	ERDF cover design and construction closeout completed with fewer resources than planned; FY99 over accrual.	Cost underrun	Underrun will be used to perform other remediation work.
ER05 - Surveillance/Maintenance & Transition	(\$413K)	(1) KE/KW legacy waste removal cost overrun; estimate did not account for difficulties encountered. (2) 200 Area miscellaneous waste management and increased disposal costs for PHMC recharacterization. (3) Underruns on B Plant S&M and RARA stabilization from work practice efficiencies.	None	(1) Overrun reflected in EAC. (2) Project monitoring costs; trends identified. (3) Underrun will be utilized for other ER work.
ER06 - Decommissioning Projects	\$504K	(1) F and DR ISS sample analysis costs are lower than expected due to utilizing larger data groups (economies of scale). (2) 233-S additional cost to correct airflow and installing electrical upgrades in viewing room.	None	(1) Savings will be used to perform other remediation work. (2) Cost overruns are being trended. Engineering controls have been implemented to resume characterization activities.

## ENVIRONMENTAL RESTORATION PROJECT

### Cost Variance Report

Project	Variance	Reason	Impact	Corrective Actions
ER08 - Groundwater Management	\$559K	Underrun due to completion of drilling of ISRM ahead of schedule.	None	Savings will be used to perform other remediation work.
ER10 - ERC Program Management and Support	\$494K	Fewer special requests and audits have resulted in savings; baseline management efficiencies.	None	None required.
VZ01 – Site-Wide Groundwater /Vadose Zone Integration Project	\$412K	Efficiencies in Science and Technology labor and characterization of systems performed with fewer resources.	Cost underrun	Savings will be used to perform other remediation work.
Total	\$10,202K			

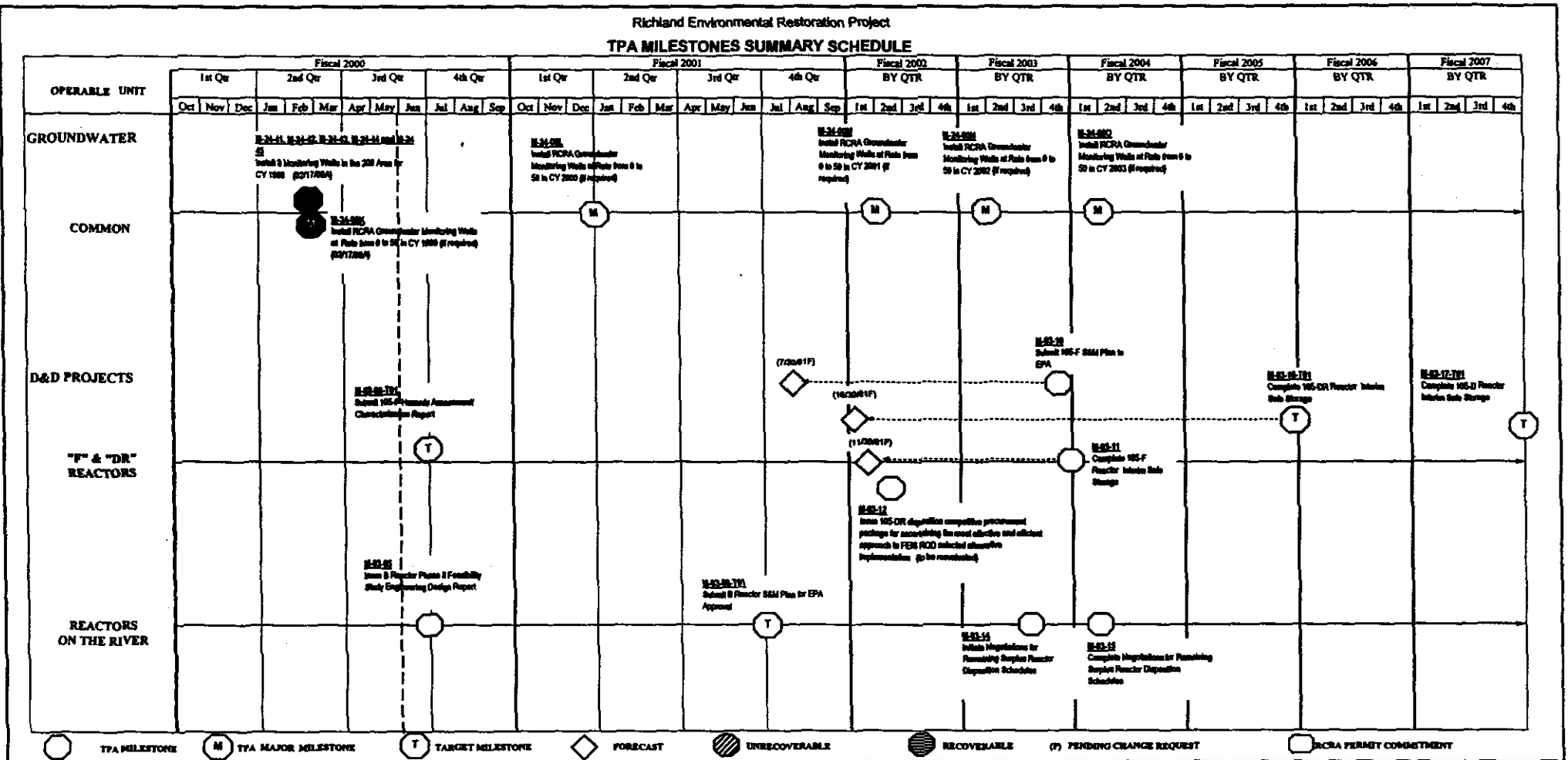
**Richland Environmental Restoration Project**  
**TPA MILESTONES SUMMARY SCHEDULE**

Environmental Restoration TPA Quarterly Review (05/00)

## Richland Environmental Restoration Project

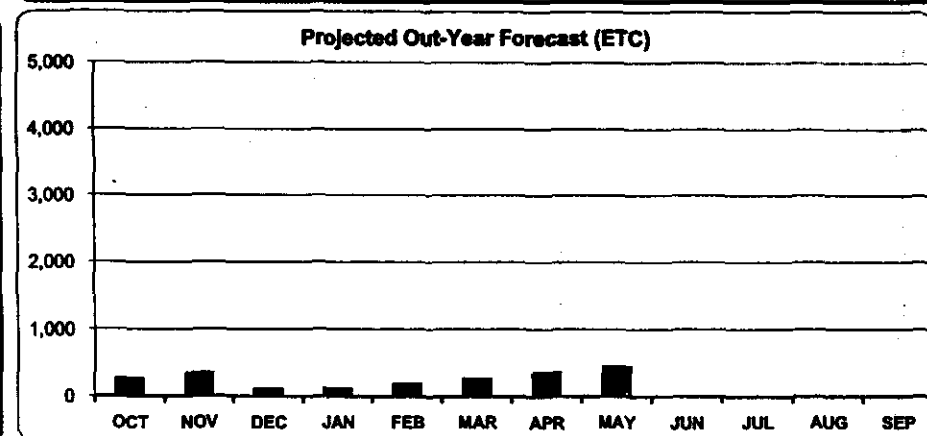
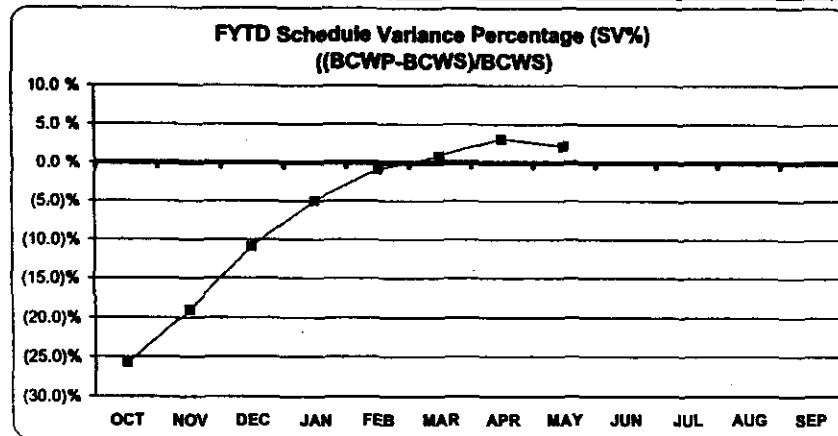
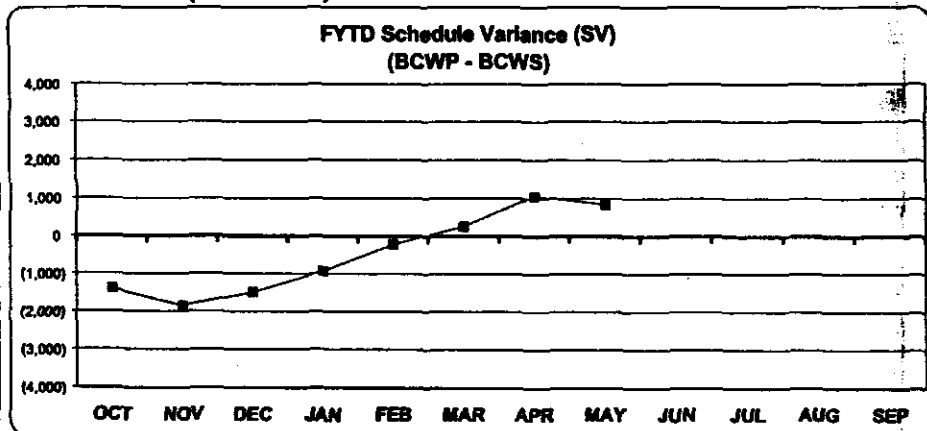
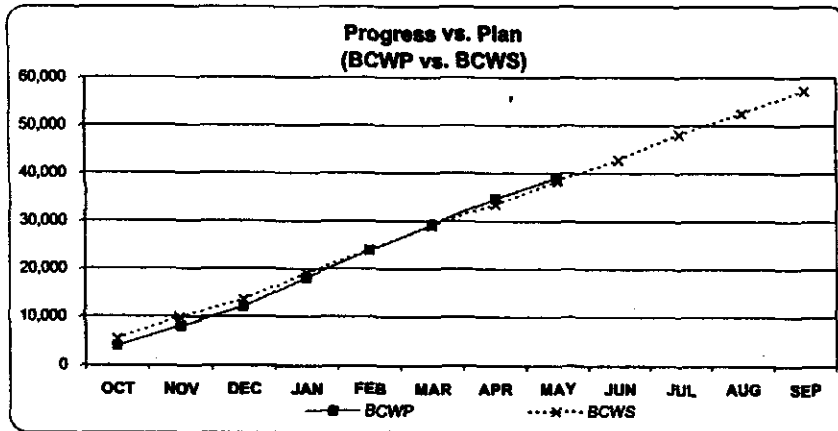
Environmental Restoration TPA Quarterly Review (05/00)

## ENVIRONMENTAL RESTORATION PROJECT



## B. REMEDIAL ACTION AND WASTE DISPOSAL PROJECT

### SCHEDULE PERFORMANCE (\$'s in 000)

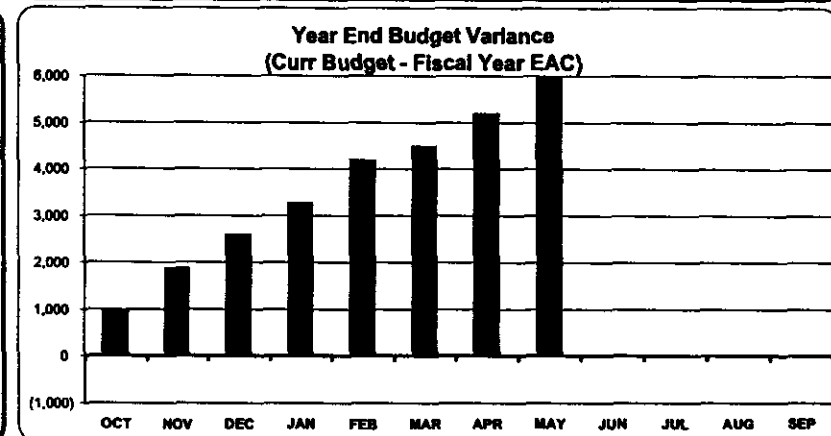
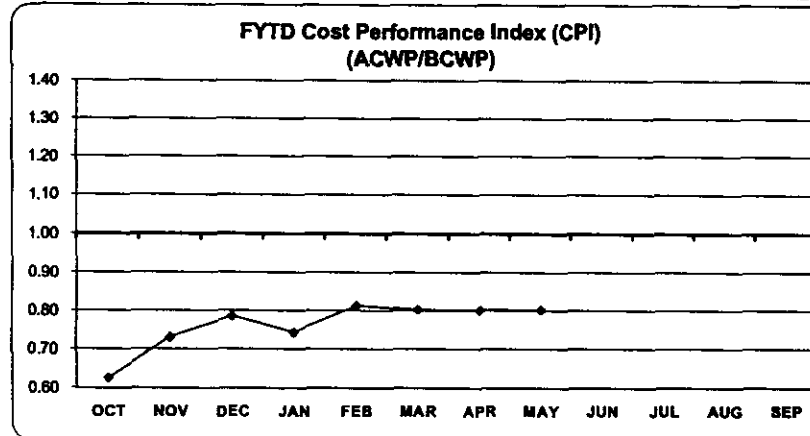
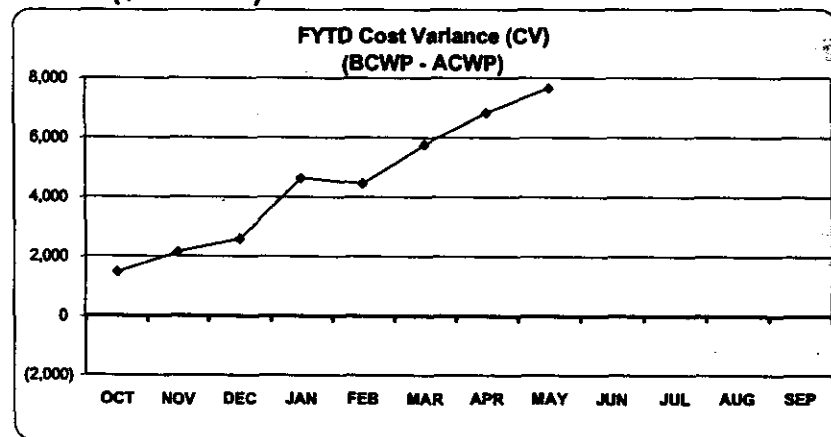
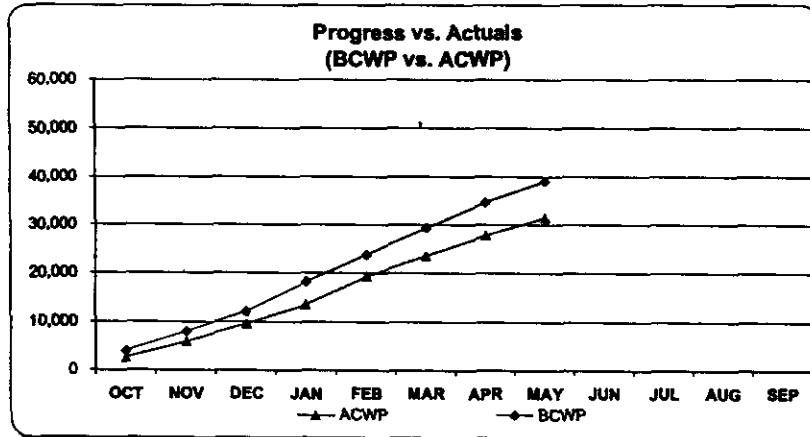


	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	3,555	3,121	3,126	3,902	3,552	3,916	4,299	3,622	3,539	4,157	4,285	5,594
DWP (Accum)	3,555	6,676	9,802	13,703	17,256	21,171	25,470	29,092	32,631	36,788	41,073	46,667
CURRENT PERIOD												
BCWS	5,355	4,498	3,726	5,547	4,921	5,031	4,489	4,686	4,505	5,401	4,320	4,992
BCWP	3,974	4,012	4,109	6,093	5,653	5,500	5,285	4,467	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	5,355	9,853	13,580	19,126	24,047	29,078	33,567	38,253	42,758	48,159	52,479	57,470
BCWP	3,974	7,986	12,095	18,188	23,842	29,342	34,626	39,094	-	-	-	-
SV	(1,381)	(1,868)	(1,485)	(938)	(206)	263	1,059	841	-	-	-	-
SV%	-25.8%	-19.0%	-10.9%	-4.9%	-0.9%	0.9%	3.2%	2.2%	-	-	-	-
Yr End Sch Carry Over	268	353	119	120	192	269	360	448	-	-	-	-



## B. REMEDIAL ACTION AND WASTE DISPOSAL PROJECT

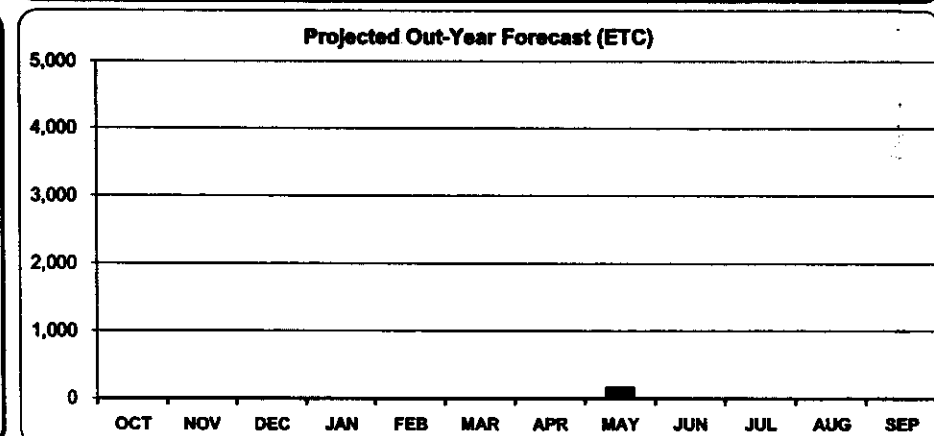
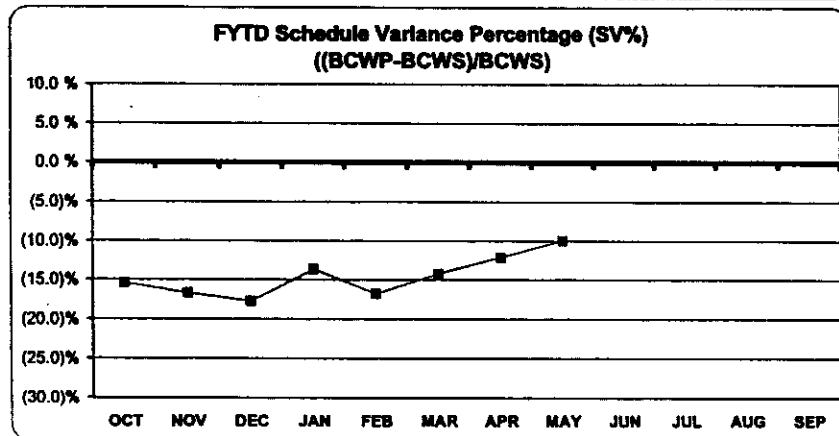
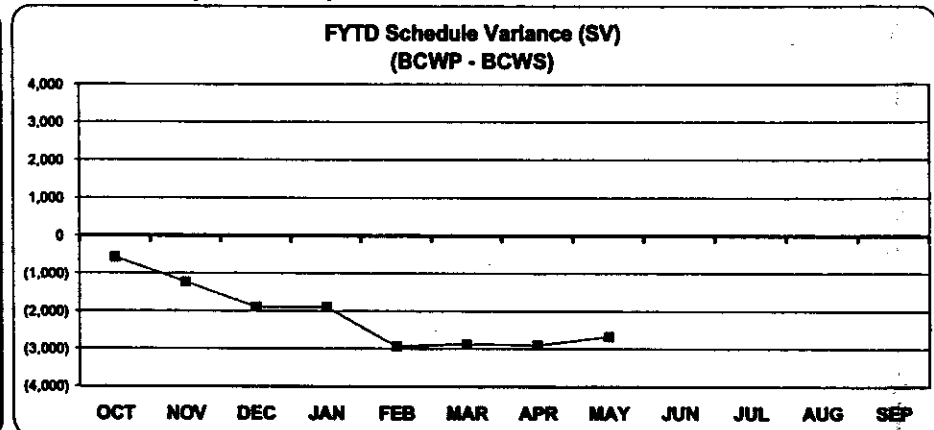
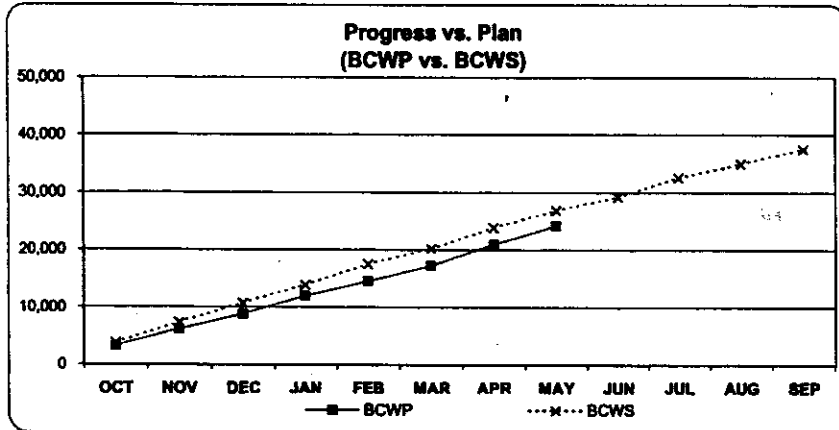
### COST PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	2,489	3,352	3,670	4,022	5,850	4,189	4,220	3,643	-	-	-	-	-
BCWP	3,974	4,012	4,109	6,093	5,653	5,500	5,285	4,467	-	-	-	-	-
FISCAL YEAR TO DATE													
ACWP	2,489	5,841	9,511	13,533	19,383	23,573	27,793	31,436	-	-	-	-	-
BCWP	3,974	7,986	12,095	18,188	23,842	29,342	34,626	39,094	-	-	-	-	-
CV	1,485	2,145	2,584	4,655	4,458	5,769	6,834	7,658	-	-	-	-	-
CPI	0.63	0.73	0.79	0.74	0.81	0.80	0.80	0.80	-	-	-	-	-
EAC (Cumulative)	2,489	5,841	9,511	13,533	19,383	23,573	27,793	31,436	37,059	42,652	46,447	51,066	51,515
Yr End Budget Var	974	1,886	2,596	3,278	4,186	4,494	5,195	5,956	-	-	-	-	448

## C. GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

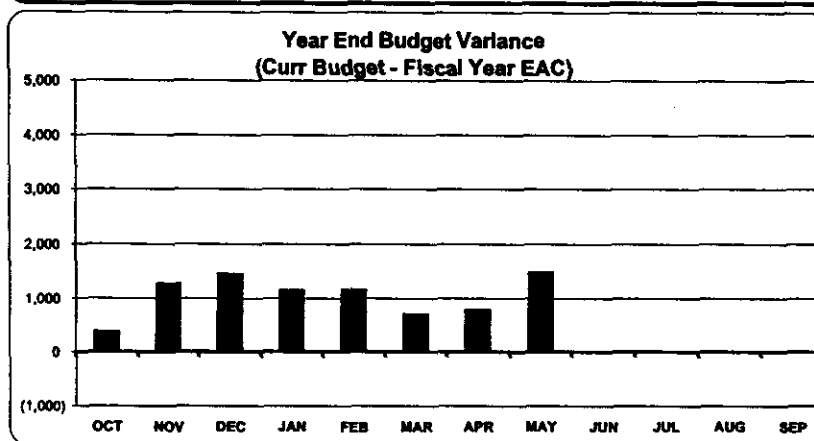
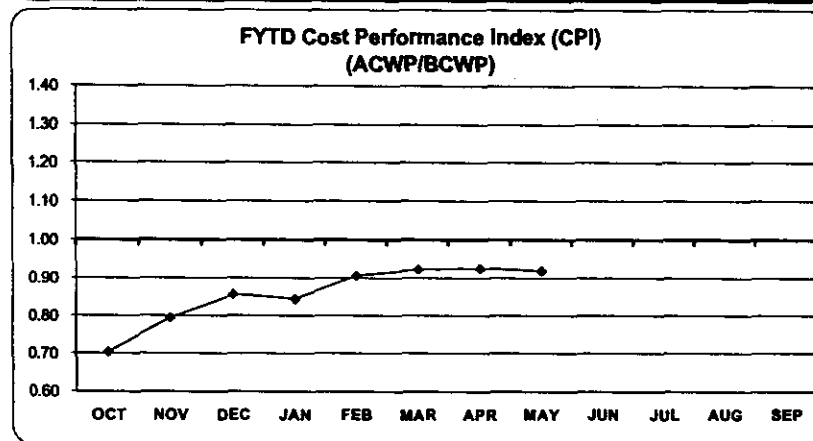
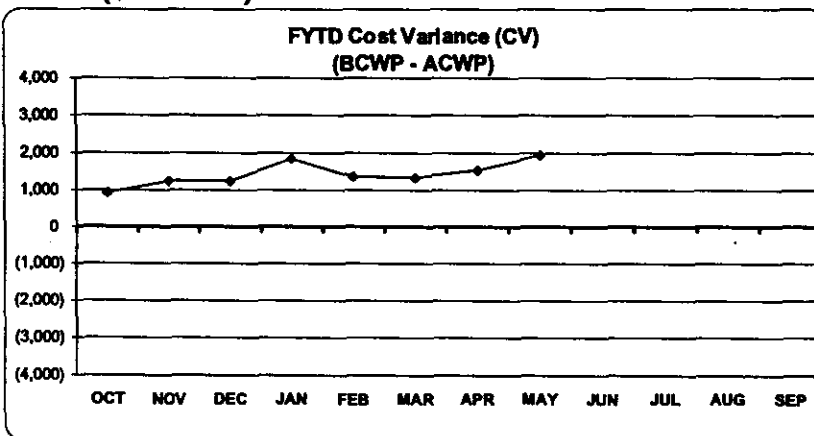
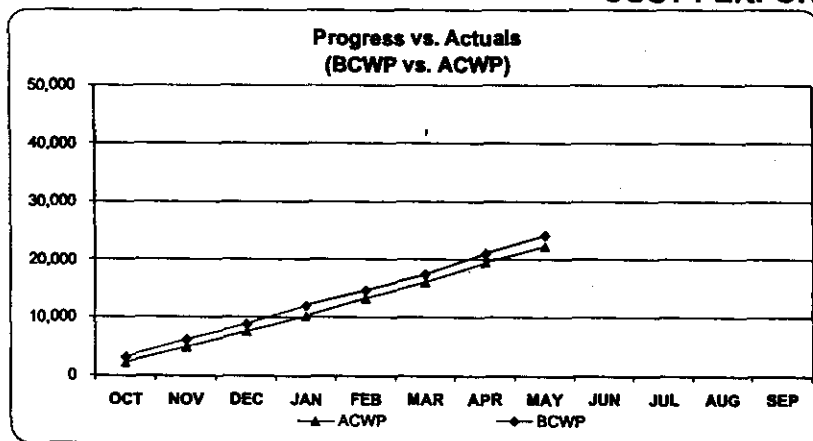
### SCHEDULE PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	3,177	3,115	2,799	3,704	2,617	2,701	2,962	2,592	2,547	3,276	2,470	2,292
DWP (Accum)	3,177	6,292	9,091	12,795	15,412	18,114	21,076	23,668	26,215	29,491	31,961	34,253
CURRENT PERIOD												
BCWS	3,742	3,588	3,358	3,225	3,646	2,703	3,625	2,995	2,396	3,307	2,404	2,631
BCWP	3,168	2,940	2,688	3,217	2,600	2,780	3,593	3,220	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	3,742	7,330	10,688	13,912	17,559	20,262	23,887	26,882	29,278	32,585	34,990	37,621
BCWP	3,168	6,108	8,796	12,013	14,613	17,393	20,986	24,206	-	-	-	-
SV	(574)	(1,222)	(1,892)	(1,899)	(2,946)	(2,869)	(2,901)	(2,676)	-	-	-	-
SV%	-15.4%	-16.7%	-17.7%	-13.6%	-16.8%	-14.2%	-12.1%	-10.0%	-	-	-	-
Yr End Sch Carry Over	-	-	-	-	-	-	-	167	-	-	-	-

## C. GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

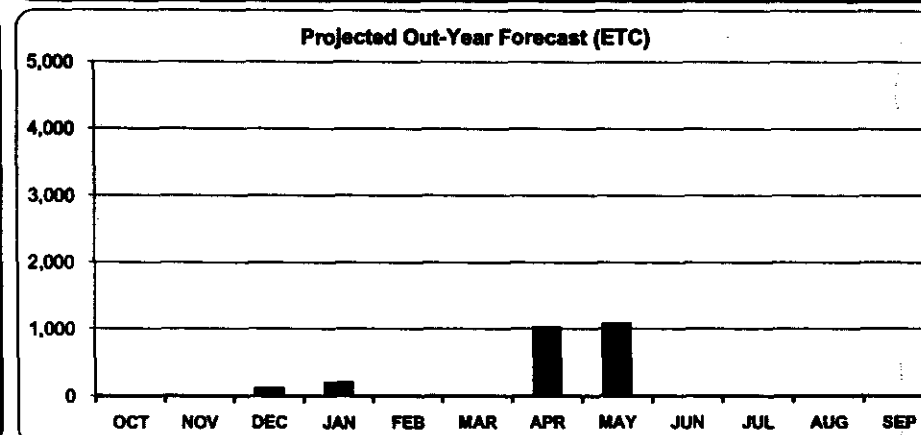
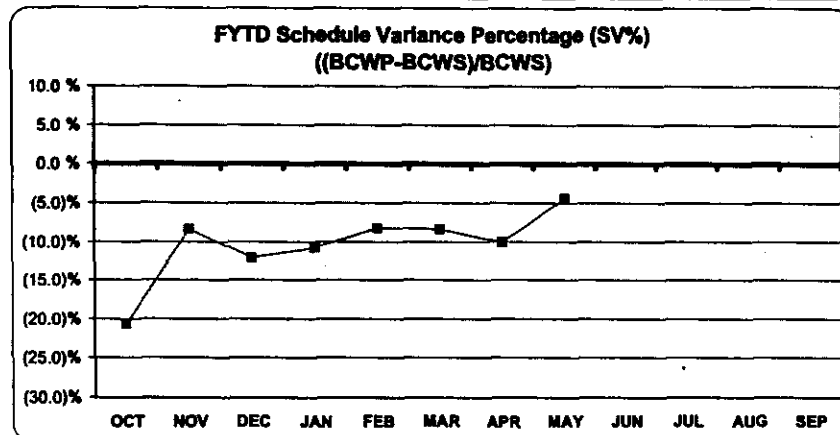
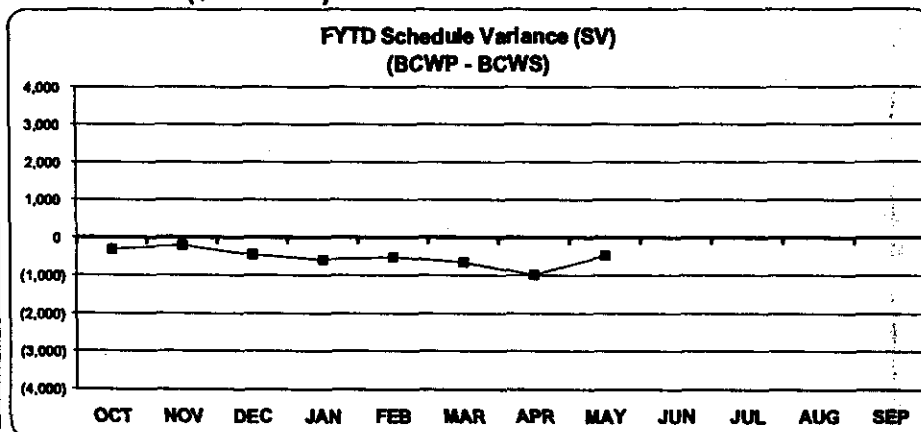
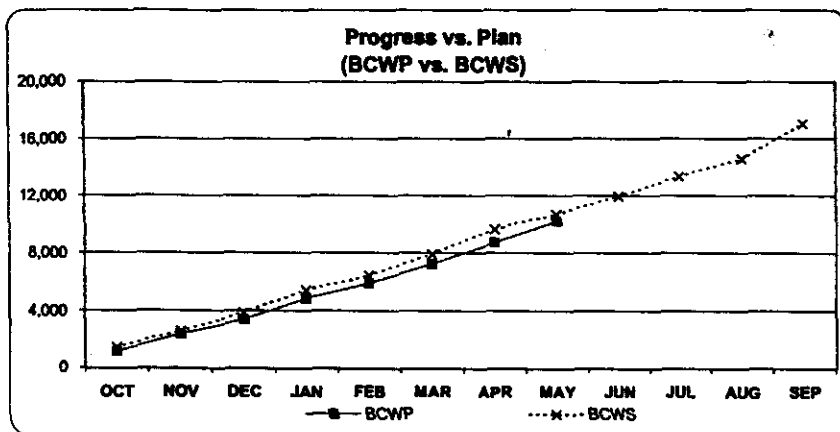
### COST PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	2,233	2,631	2,682	2,611	3,081	2,807	3,385	2,818	-	-	-	-	-
BCWP	3,168	2,940	2,688	3,217	2,600	2,780	3,593	3,220	-	-	-	-	-
FISCAL YEAR TO DATE													
ACWP	2,233	4,864	7,546	10,158	13,239	16,046	19,431	22,249	-	-	-	-	-
BCWP	3,168	6,108	8,796	12,013	14,613	17,393	20,986	24,206	-	-	-	-	-
CV	935	1,244	1,250	1,856	1,374	1,348	1,555	1,957	-	-	-	-	-
CPI	0.70	0.80	0.86	0.85	0.91	0.92	0.93	0.92	-	-	-	-	-
EAC (Cumulative)	2,233	4,864	7,546	10,158	13,239	16,046	19,431	22,249	25,822	30,012	32,809	35,956	36,123
Yr End Budget Var	379	1,280	1,458	1,151	1,168	717	789	1,498	-	-	-	-	167

## D. DECOMMISSIONING PROJECTS

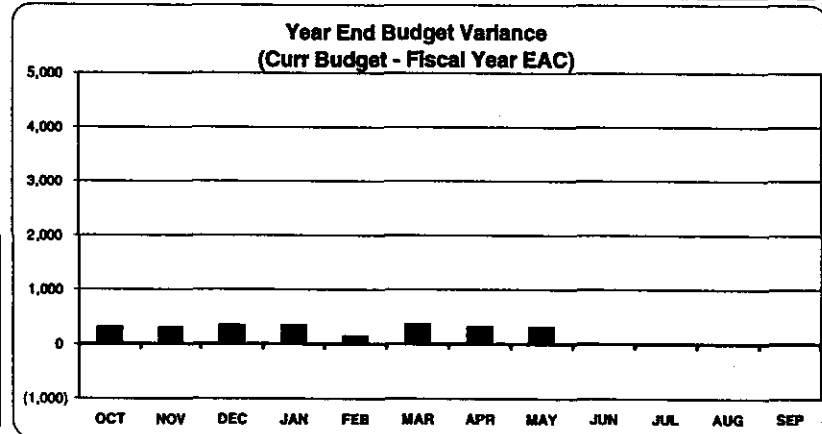
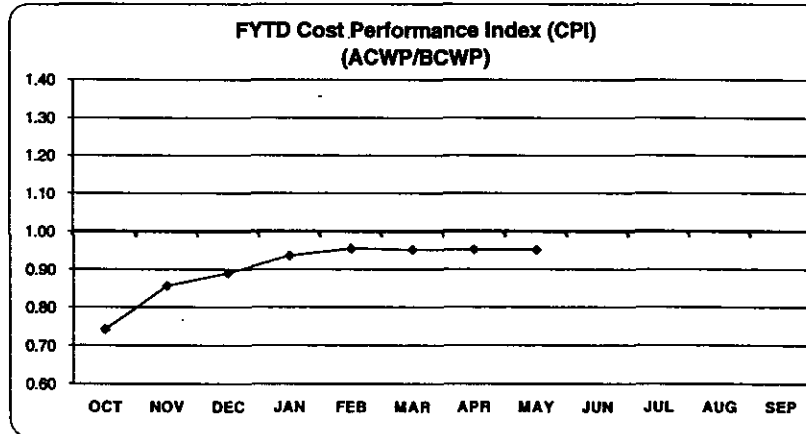
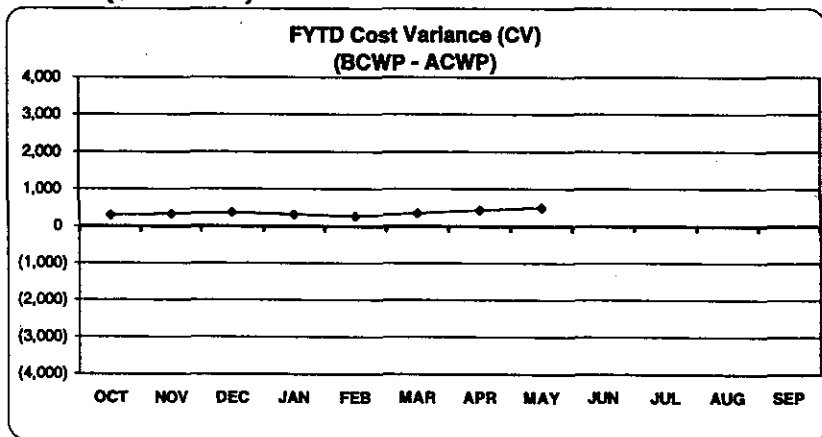
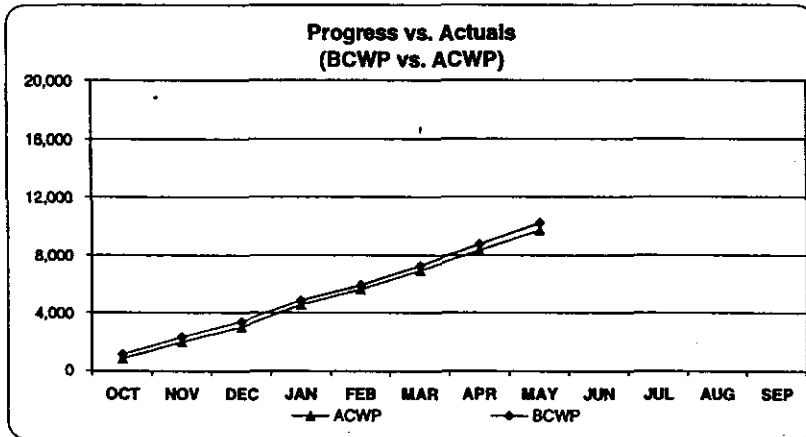
### SCHEDULE PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	1,279	1,089	1,079	791	572	516	587	509	424	562	443	595
DWP (Accum)	1,279	2,368	3,446	4,237	4,809	5,325	5,913	6,421	6,846	7,408	7,850	8,445
CURRENT PERIOD												
BCWS	1,467	1,086	1,300	1,588	982	1,489	1,796	981	1,266	1,394	1,275	2,471
BCWP	1,164	1,175	1,051	1,466	1,037	1,358	1,481	1,483	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	1,467	2,553	3,852	5,440	6,422	7,911	9,706	10,887	11,954	13,348	14,623	17,094
BCWP	1,164	2,339	3,390	4,856	5,894	7,252	8,733	10,216	-	-	-	-
SV	(304)	(214)	(462)	(584)	(528)	(659)	(974)	(471)	-	-	-	-
SV%	-20.7%	-8.4%	-12.0%	-10.7%	-8.2%	-8.3%	-10.0%	-4.4%	-	-	-	-
Yr End Sch Carry Over	-	-	121	200	-	-	1,025	1,083	-	-	-	-

## D. DECOMMISSIONING PROJECTS

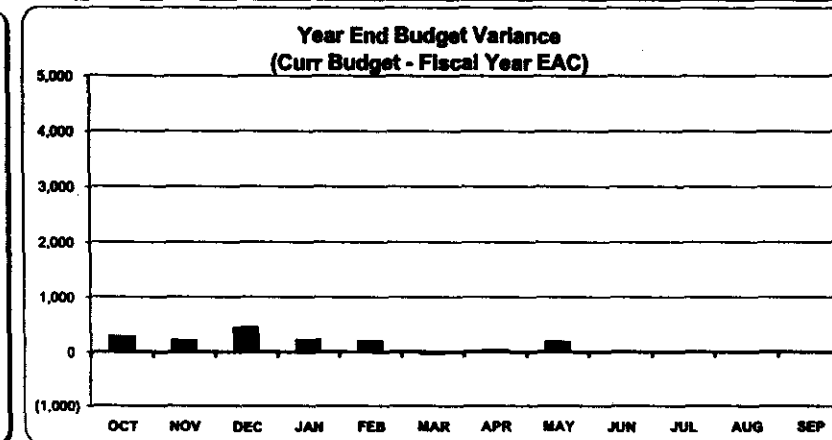
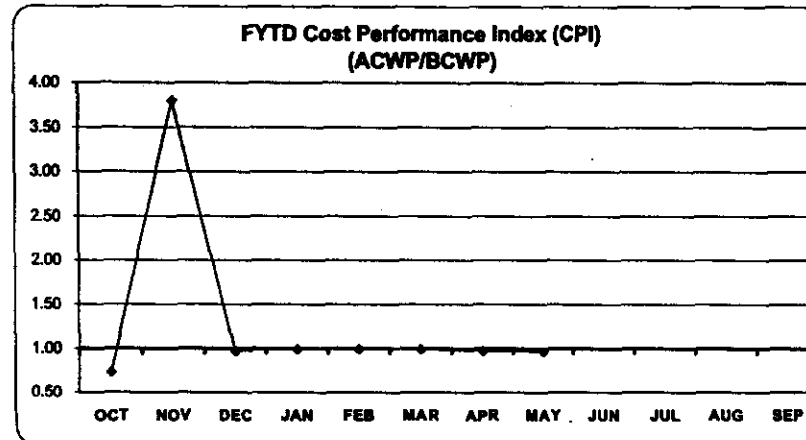
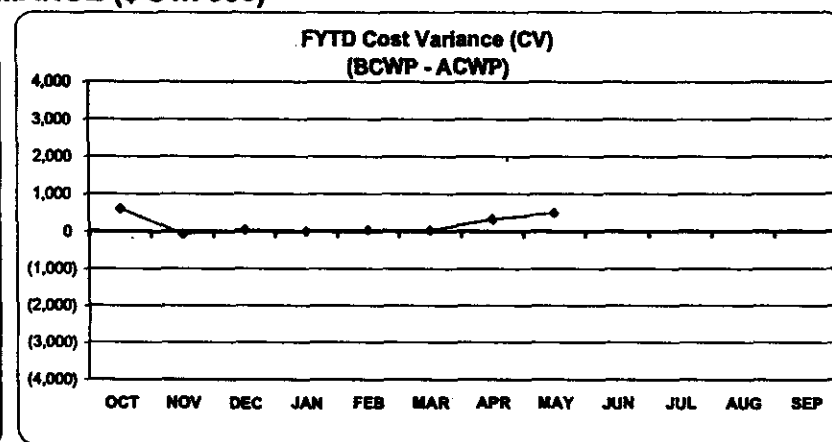
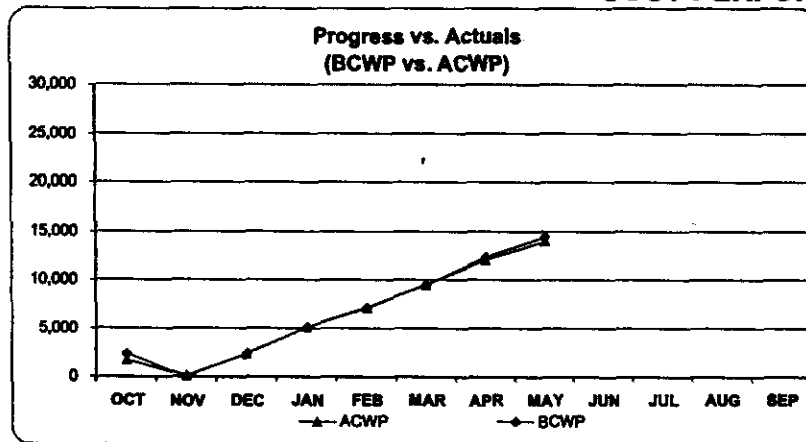
### COST PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
<b>CURRENT PERIOD</b>													
ACWP	864	1,138	1,017	1,523	1,081	1,280	1,404	1,405	-	-	-	-	-
BCWP	1,164	1,175	1,051	1,466	1,037	1,358	1,481	1,483	-	-	-	-	-
<b>FISCAL YEAR TO DATE</b>													
ACWP	864	2,002	3,019	4,542	5,623	6,903	8,307	9,712	-	-	-	-	-
BCWP	1,164	2,339	3,390	4,856	5,894	7,252	8,733	10,216	-	-	-	-	-
CV	300	337	371	315	271	349	426	503	-	-	-	-	-
CPI	0.74	0.86	0.89	0.94	0.95	0.95	0.95	0.95	-	-	-	-	-
EAC (Cumulative)	864	2,002	3,019	4,542	5,623	6,903	8,307	9,712	11,234	12,943	14,264	15,699	16,783
Yr End Budget Var	320	312	352	345	145	367	329	311	-	-	-	-	1,083

## F. PROGRAM MANAGEMENT AND SUPPORT - ERC

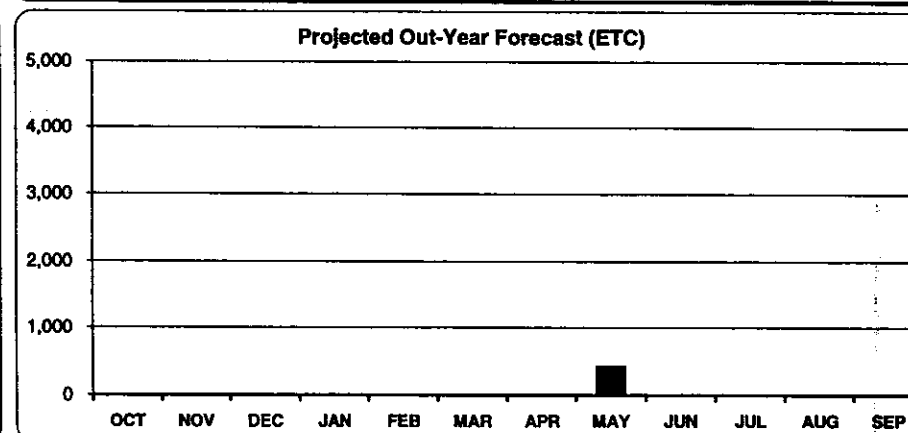
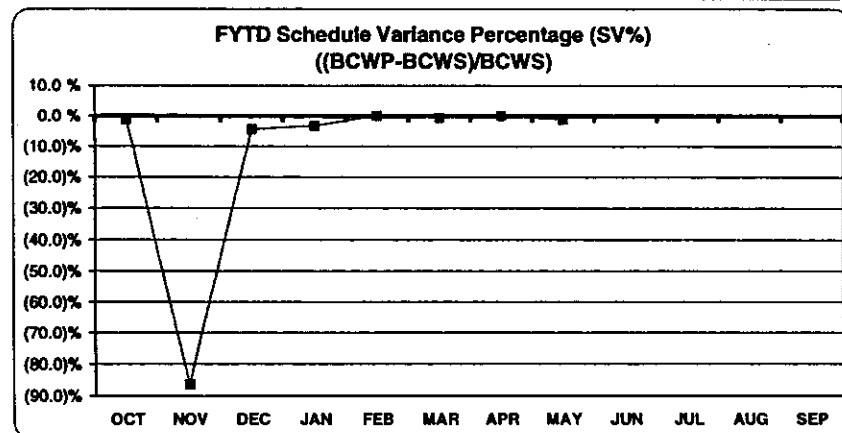
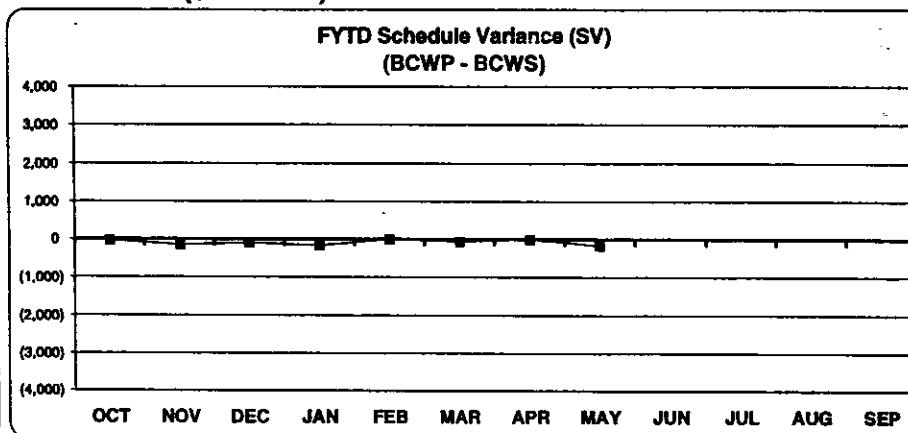
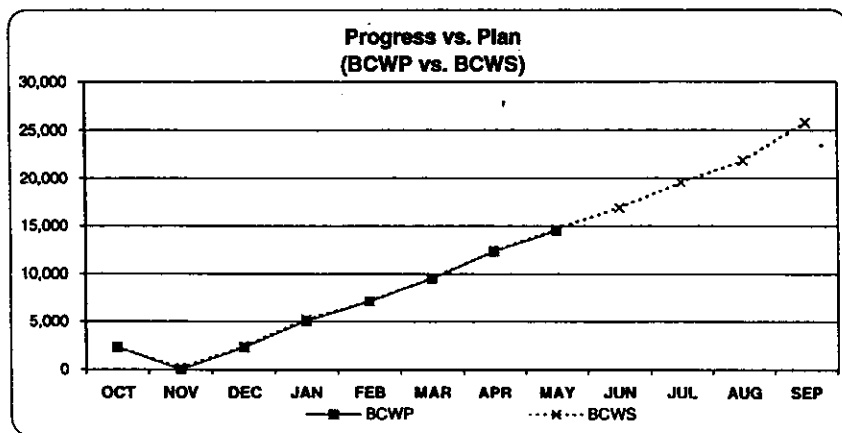
### COST PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	1,678	(1,592)	2,188	2,793	2,023	2,388	2,554	1,958	-	-	-	-	-
BCWP	2,293	(2,270)	2,304	2,757	2,050	2,377	2,862	2,110	-	-	-	-	-
FISCAL YEAR TO DATE													
ACWP	1,678	85	2,274	5,087	7,090	9,478	12,032	13,990	-	-	-	-	-
BCWP	2,293	22	2,326	5,083	7,134	9,511	12,373	14,483	-	-	-	-	-
CV	615	(63)	53	16	44	33	341	493	-	-	-	-	-
CPI	0.73	3.80	0.98	1.00	0.99	1.00	0.97	0.97	-	-	-	-	-
EAC (Cumulative)	1,678	85	2,274	5,087	7,090	9,478	12,032	13,990	16,298	19,053	21,513	25,137	25,566
Yr End Budget Var	286	210	442	229	207	(22)	49	194	-	-	-	-	429

## F. PROGRAM MANAGEMENT AND SUPPORT - ERC

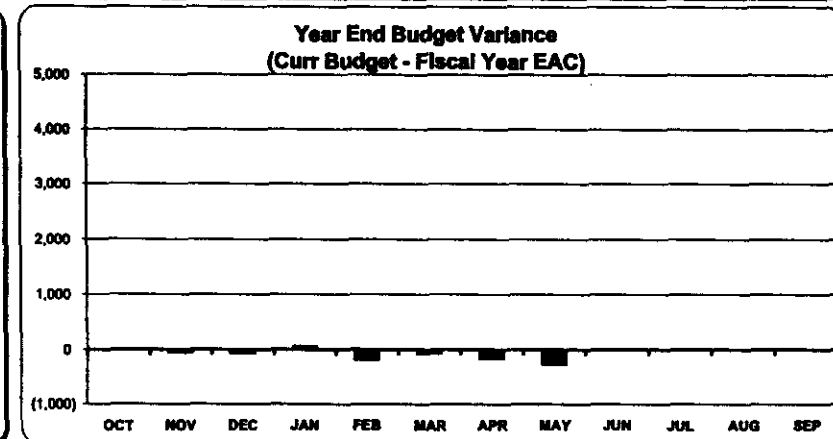
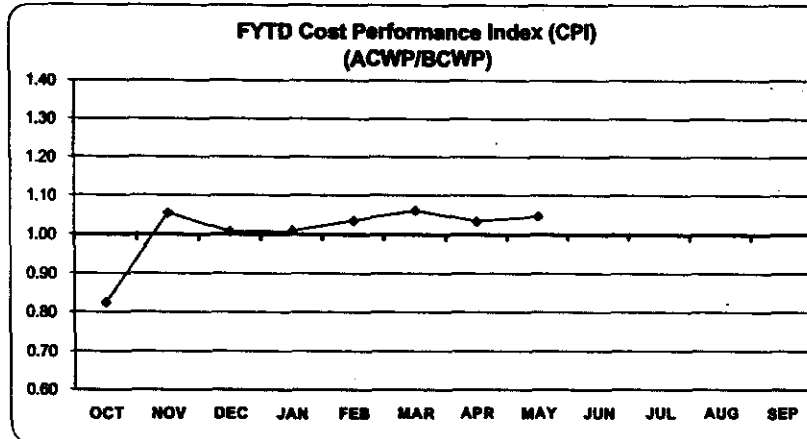
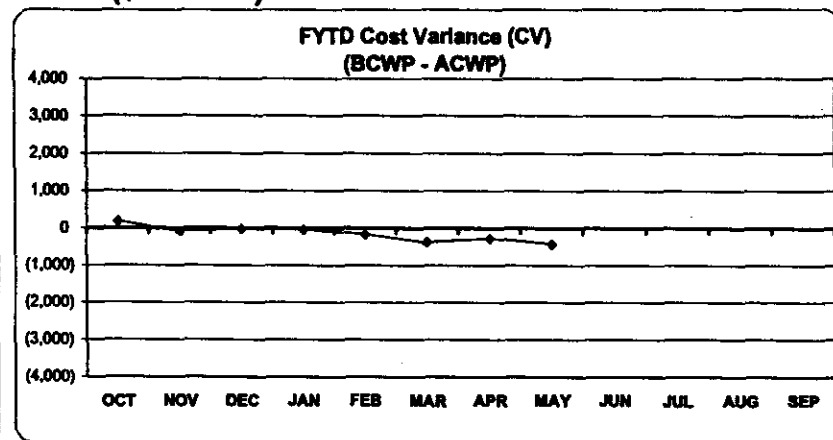
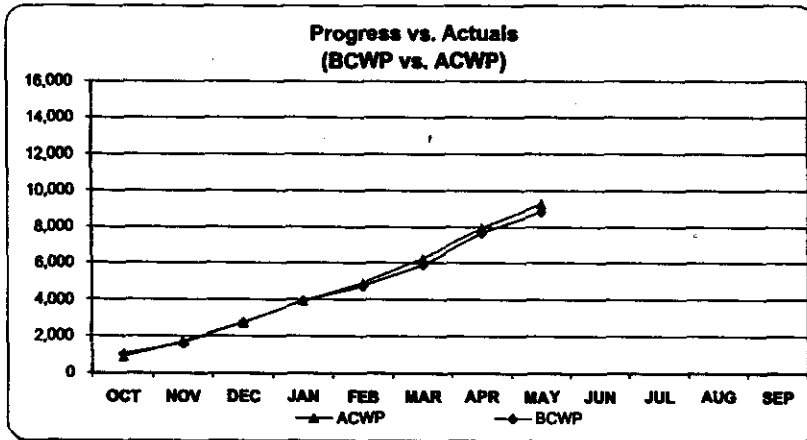
### SCHEDULE PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	2,246	1,915	1,914	2,602	2,050	2,159	2,753	2,233	2,134	2,682	2,219	2,690
DWP (Accum)	2,246	4,161	6,075	8,677	10,727	12,886	15,639	17,872	20,006	22,688	24,907	27,597
CURRENT PERIOD												
BCWS	2,319	(2,154)	2,266	2,816	1,890	2,431	2,812	2,272	2,296	2,600	2,301	3,912
BCWP	2,293	(2,270)	2,304	2,757	2,050	2,377	2,862	2,110	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	2,319	165	2,431	5,247	7,137	9,568	12,380	14,652	16,948	19,548	21,849	25,761
BCWP	2,293	22	2,326	5,083	7,134	9,511	12,373	14,483	-	-	-	-
SV	(26)	(143)	(105)	(164)	(3)	(57)	(7)	(169)	-	-	-	-
SV%	-1.1%	-86.4%	-4.3%	-3.1%	0.0%	-0.6%	-0.1%	-1.2%	-	-	-	-
Yr End Sch Carry Over	0	-	-	-	-	-	-	429	-	-	-	-

## E. SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS

### COST PERFORMANCE (\$'s in 000)

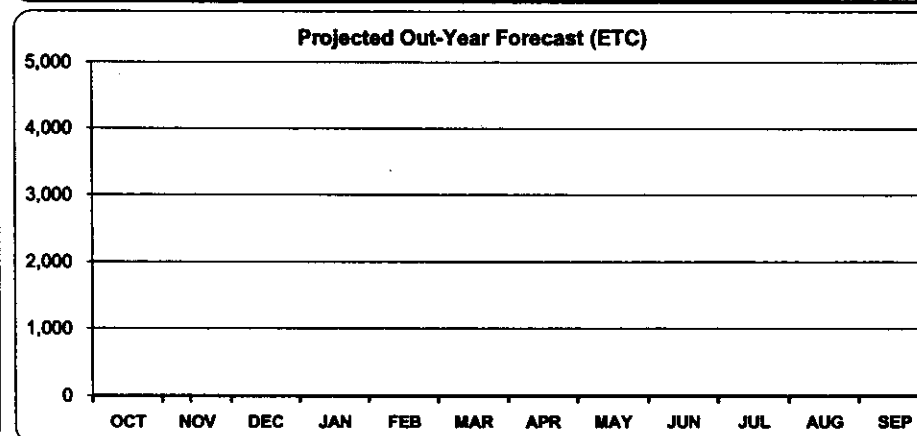
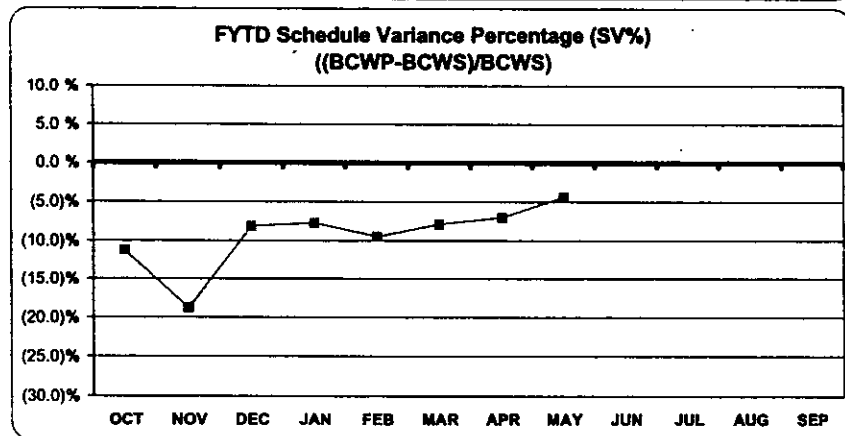
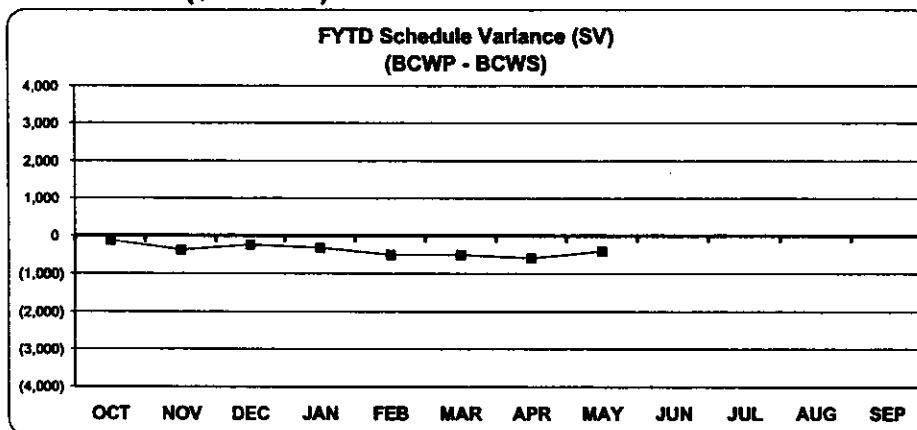
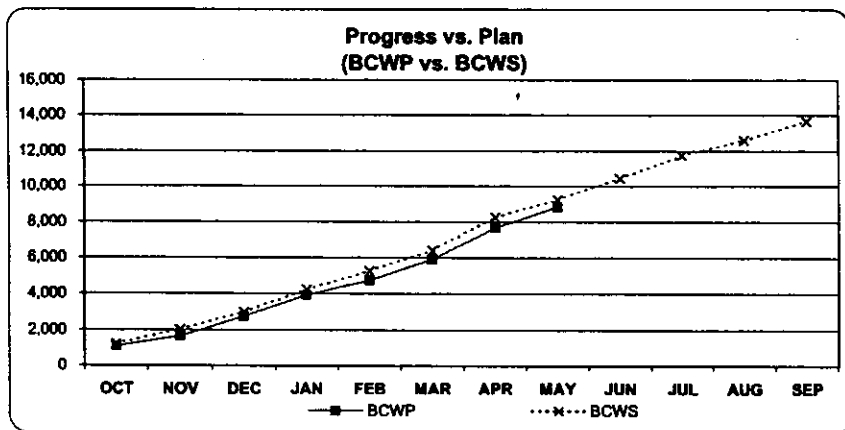


	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Carry Over
CURRENT PERIOD													
ACWP	877	856	1,036	1,187	975	1,348	1,865	1,317	-	-	-	-	-
BCWP	1,063	580	1,108	1,174	837	1,148	1,767	1,171	-	-	-	-	-
FISCAL YEAR TO DATE													
ACWP	877	1,733	2,768	3,956	4,931	6,277	7,942	9,259	-	-	-	-	-
BCWP	1,063	1,643	2,751	3,925	4,762	5,910	7,678	8,849	-	-	-	-	-
CV	186	(89)	(17)	(31)	(169)	(367)	(264)	(410)	-	-	-	-	-
CPI	0.82	1.05	1.01	1.01	1.04	1.06	1.03	1.05	-	-	-	-	-
EAC (Cumulative)	877	1,733	2,768	3,956	4,931	6,277	7,942	9,259	10,681	12,135	13,089	13,935	13,935
Yr End Budget Var	8	(50)	(55)	70	(182)	(74)	(156)	(266)	-	-	-	-	0



## E. SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS

### SCHEDULE PERFORMANCE (\$'s in 000)



	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	873	852	879	1,209	927	1,040	1,082	1,182	1,115	1,160	943	1,075
DWP (Accum)	873	1,724	2,604	3,812	4,739	5,779	6,862	8,044	9,159	10,319	11,263	12,338
CURRENT PERIOD												
BCWS	1,198	824	972	1,261	1,006	1,154	1,845	992	1,195	1,319	841	1,082
BCWP	1,063	580	1,108	1,174	837	1,148	1,767	1,171	-	-	-	-
FISCAL YEAR TO DATE												
BCWS	1,198	2,022	2,993	4,255	5,261	6,414	8,259	9,252	10,446	11,765	12,606	13,668
BCWP	1,063	1,643	2,751	3,925	4,762	5,910	7,678	8,849	-	-	-	-
SV	(134)	(379)	(242)	(330)	(499)	(504)	(582)	(403)	-	-	-	-
SV%	-11.2%	-18.7%	-8.1%	-7.8%	-9.5%	-7.9%	-7.0%	-4.4%	-	-	-	-
Yr End Sch Carry Over	-	-	-	-	-	1	0	0	-	-	-	-

# M-19-00 & M-91-00

WASTE MANAGEMENT DIVISION

Sen Moy and Russ Warren

June 2000

TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

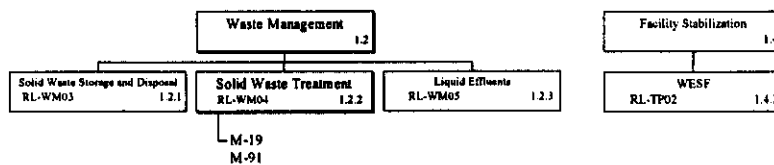
JUNE 2000

## MILESTONE DESCRIPTION

TPA MILESTONE	DESCRIPTION
M-19-00	<p>Complete treatment and/or direct disposal of at least 1,644 cubic meters of contact handled low level mixed waste already in storage as of October 1, 1995, as well as newly generated Hanford Site low level mixed waste.</p> <p>Cumulative treatment and/or direct disposal rates will be at least 246 cubic meters by the end of FY 2000, 822 cubic meters by the end of FY 2001, and 1,644 cubic meters by the end of FY 2002.</p>
M-91-00	<p>Complete the acquisition of new facilities, modification of existing facilities, and/or modification of planned facilities necessary for storage, treatment/processing, and disposal of all Hanford site TRU/TRUM, LLMW, and GTC3.</p>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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## WORK BREAKDOWN STRUCTURE



TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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## MILESTONE SCHEDULE

WBS (ADS)	BASELINE DATE	FISCAL YEAR 2000												
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1.2.2 (RL-WM04) Solid Waste Treatment	6/30/00													PMP submitted to RL 5/11. On schedule for submittal to Ecology.
	9/30/00													TRU Retrieval began July 22, 1999. 273 drums assayed. Partially funded in FY 2000 using FY1999 carryover (savings).
	9/30/00													Sanders to Wilson and Sherwood 9955073, 7/20/99
MILESTONE TYPES:														
		○ M	TPA MILESTONE		⊙	DOE-HQ		◇	FORECAST					
		○ I	TPA INTERIM		⊙	DOE-RL		△	Treatment Rate					

TPA MILESTONE REVIEW		WASTE MANAGEMENT PROJECT												JUNE 2000		
MILESTONE SCHEDULE																
WBS (ADS)	BASELINE DATE	FISCAL YEAR 2001														
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1.2.2 (RL-WM04) Solid Waste Treatment	12/31/00				○ <sup>I</sup>	(M-91-11-T01) Submit LLMW Engineering Study/FDC.										On Schedule.
	12/31/00				○ <sup>I</sup>	(M-91-12) Initiate Thermal Treatment of LLMW.										On Schedule.
	6/29/01					(M-91-18) Transmit T Plant Sludge Storage CDD to Ecology.							○ <sup>I</sup>	New Interim Milestone. On Schedule.		
	6/30/01					(M-91-13) Initiate Disposal of LLMW.							● <sup>I</sup>	Trench 34 in Disposal Mode September 15, 1999.		
	9/30/01												(M-19-00) Cumulative Treatment Rate 822 cubic meters	△ Currently at 942 cubic meters (see Scorecard).		
MILESTONE TYPES:		○ <sup>M</sup> TPA MILESTONE	○ <sup>I</sup> TPA INTERIM	⊙ <sup>DOE-HQ</sup>	⊙ <sup>DOE-RL</sup>	◇ FORECAST	△ Treatment Rate									

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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**MILESTONE EXCEPTION REPORT**

TPA MILESTONE	FUTURE MILESTONES IN JEOPARDY
M-91-07	"Complete Project W-113 for Post 1970 CH TRU/TRUM retrieval" by September 2004.

TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

JUNE 2000

## M-19 ACCOMPLISHMENTS

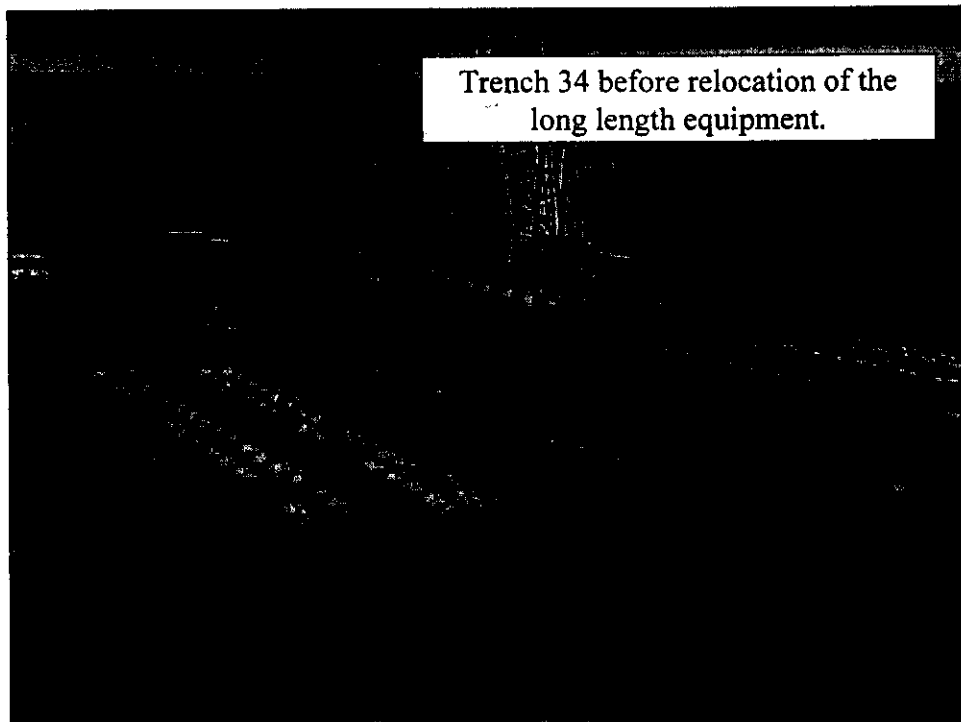
WBS  
1.2.2.3

### M-19-01-T03 LOW LEVEL MIXED WASTE TREATMENT

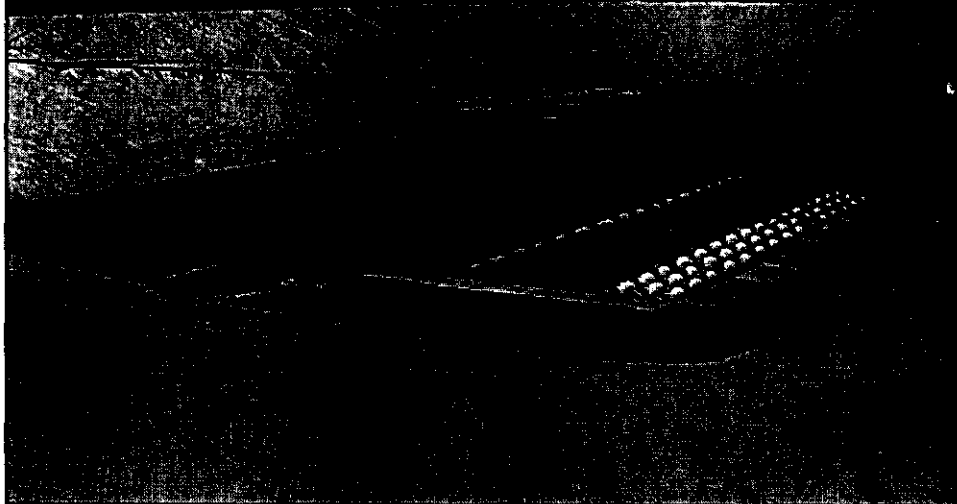
MLLW treatment at ATG continues. As of mid-June approximately:

- 1000 m<sup>3</sup> has been shipped
- 570 m<sup>3</sup> has been treated and disposed of
- a stored CWC inventory reduction of 1670 m<sup>3</sup> has been achieved.

Relocated long-length equipment and macro-tubes in Trench 34 to facilitate disposal of ATG macroencapsulation waste.



Trench 34 after relocation of the long length equipment, showing a significant amount of ATG-treated waste.



TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

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### M-19-00 SCORECARD

"Treat and/or directly dispose of at least 246 cubic meters of CH-LLMW by September 2000, 822 cubic meters by September 2001, and 1,644 by September 2002"		<u>Quantity in cubic meters</u>
<b>M-19 Waste:</b>		
- ATG Macroencapsulation (as of mid-June)		570
- Macroencapsulation Pilot (1997)		183
- Long Length Equipment (1996/1997)		95
- Backlog Soils Disposal (1997/1999)		79
- B Plant TBP Organic Liquid (1998)		11
- Mixed Waste from PNNL (1998)		2
- Lead Decontamination Project (1998)		1
- WT02/WP02 State-Only Waste (1999)		1
<b>TOTAL M-19 WASTE</b>		<b>942</b>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### M-91 ACCOMPLISHMENTS

WBS 1.2.2.3	M-91 <u>LLMW and TRU Waste Facilities</u>
	<p>TRU Retrieval:</p> <ul style="list-style-type: none"> <li>Records reviewed - 960</li> <li>Retrieved - 366</li> <li>Designated TRU - 264</li> <li>Staged for Assay - 102</li> <li>Total containers shipped to CWC (FY1999 &amp; 2000) - 122</li> <li>Assay contractor arrived 6/5 and began assaying 6/19 for FY-2000.</li> </ul> <p>Completed internal (DOE) TRU/TRUM PMP in preparation for transmittal to Ecology.</p> <p>Established 5 new milestones (3 interim, 2 target) to address storage of K Basin sludge at T Plant.</p>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### PLANNED ACTIONS

TPA MILESTONE SUPPORTED	DESCRIPTION	SCHEDULED COMPLETION DATE
M-19-00	Treat 1060 cubic meters (560 m <sup>3</sup> is FY1999 scope, 500 m <sup>3</sup> is new scope) of mixed low-level waste using the non-thermal treatment contract with ATG. Treatment began in December 1999.	9/30/2000
M-19-00	Perform void fill and direct disposal of 375 containers of 200 LEF powders and 50 containers of Tank Farm Soils.	9/30/2000
M-19-00	Macroencapsulate debris from T Plant canyon deck (20 m <sup>3</sup> ) to support sludge storage.	9/30/2000

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### PLANNED ACTIONS (continued)

TPA MILESTONE SUPPORTED	DESCRIPTION	SCHEDULED COMPLETION DATE
M-91-03	Prepare the Hanford Site TRU/TRUM Waste Project Management Plan.	6/30/2000
M-91-04	Retrieve a minimum of 425 drums.	9/30/2000
M-91-12	Initiate Thermal Treatment of MLLW	12/31/2000

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### EXPENSE COST PERFORMANCE (\$ in Millions)

WBS	FY 2000 TO DATE (May)						AT COMPLETION					COMMENTS
	BUDGETED COST		ACTUAL CST		VARIANCE		BAC	EAC	FYSF	EXPECTED FUNDS FY2000	PROJECTED CARRYOVER WORK	
	WORK SCHED	WORK PERF	WORK PERF	SCHED	COST	BCWB						
1.2.2.3 M-19 AND M-91 TREATMENT	3.1	3.5	2.2	0.4	1.3	5.5	5.5	5.5	5.5	5.5	0	Stretch funding: Treatment \$0.5 M TRU \$0.85 M not in BAC



TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

JUNE 2000

### EXPENSE COST VARIANCE ANALYSIS

WBS	COST VARIANCE \$1,300K	
	(Description and Cause:)	(Impacts and Corrective Action:)
1.2.2.3	<ul style="list-style-type: none"><li>Error in May cost Accrual (900K) and Process efficiencies (400K).</li></ul>	No impacts. Cost Accrual to be corrected in June.

TPA MILESTONE  
REVIEW

WASTE MANAGEMENT PROJECT

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### EXPENSE SCHEDULE VARIANCE ANALYSIS

WBS	SCHEDULE VARIANCE \$375K	
	(Description and Cause:)	(Impacts and Corrective Action:)
1.2.2.3	<ul style="list-style-type: none"><li>Treatment wasn't initiated until December 22, 1999.</li></ul>	<ul style="list-style-type: none"><li>No impact. Working schedules adjusted to recover variance by fiscal year end, in spite of late start.</li></ul>

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### M-19 ISSUES

TPA MILESTONE	DATE IDENT	ISSUE	IMPACT	STATUS
M-19-00	6/00	Lack of progress on review and approval of delisting petition to allow disposal of U and P waste.	<ul style="list-style-type: none"> <li>3800 m<sup>3</sup> of waste at CWC has no path forward for disposal due to U and P codes.</li> <li>Providing a path forward reduces long-range impacts on storage space, reduces maintenance and operational costs at CWC, and no longer requires us to exceed the 1-yr storage prohibition.</li> </ul>	

TPA MILESTONE REVIEW	WASTE MANAGEMENT PROJECT	JUNE 2000
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### M-91 ISSUES

TPA MILESTONE	DATE IDENT	ISSUE	IMPACT	STATUS
M-91-07	6/99	Milestone cannot be accomplished as written due to funding limitations.	Replacement milestone will need to be renegotiated.	Replacement milestone will be based on funding profile.
M-91-12	3/00	Successful trial burns this summer by ATG are vital to Thermal Treatment.	Failure of trial burns may delay start of Thermal Treatment.	Trial burns are scheduled to begin in August and conclude in September.